



Southern California Association of Governments

RTP

CommunityLink 21

SOUTHERN CALIFORNIA



ASSOCIATION of
GOVERNMENTS

2001 Regional Transportation Plan

Adopted April 2001

SOUTHERN CALIFORNIA


ASSOCIATION of
GOVERNMENTS

Main Office

818 West Seventh Street

12th Floor

Los Angeles, California

90017-3435

t (213) 236-1800

f (213) 236-1825

www.scag.ca.gov

Officers: President: Mayor Pro Tem Ron Bates, Los Alamitos • First Vice President: Supervisor Jon Mikels, County of San Bernardino • Second Vice President: Councilmember Hal Bernson, Los Angeles • Immediate Past President: Supervisor Zev Yaroslavsky, Los Angeles County

Imperial County: Hank Kuiper, Imperial County • David Dhillon, El Centro

Los Angeles County: Yvonne Brathwaite Burke, Los Angeles County • Zev Yaroslavsky, Los Angeles County • Eileen Ansari, Diamond Bar • Bob Bartlett, Monrovia • Bruce Barrows, Cerritos • George Bass, Bell • Hal Bernson, Los Angeles • Robert Bruesch, Rosemead • Laura Chick, Los Angeles • Gene Daniels, Paramount • Jo Anne Darcy, Santa Clarita • John Ferraro, Los Angeles • Michael Feuer, Los Angeles • Ruth Galanter, Los Angeles • Ray Grabinski, Long Beach • Dee Hardison, Torrance • Mike Hernandez, Los Angeles • Nate Holden, Los Angeles • Sandra Jacobs, El Segundo • Lawrence Kirkley, Inglewood • Keith McCarthy, Downey • Cindy Miscikowski, Los Angeles • Stacey Murphy, Burbank • Pam O'Connor, Santa Monica • Nick Pacheco, Los Angeles • Alex Padilla, Los Angeles • Beatrice Proo, Pico Rivera • Mark Ridley-Thomas, Los Angeles • Richard Riordan, Los Angeles • Karen Rosenthal, Claremont • Marcine Shaw, Compton • Rudy Svorinich, Los Angeles • Paul Talbot, Alhambra • Sidney Tyler, Jr., Pasadena • Joel Wachs, Los Angeles • Rita Walters, Los Angeles • Dennis Washburn, Calabasas • Rob Webb, Long Beach

Orange County: Charles Smith, Orange County • Ron Bates, Los Alamitos • Ralph Bauer, Huntington Beach • Art Brown, Buena Park • Lou Bone, Tustin • Elizabeth Cowan, Costa Mesa • Cathryn DeYoung, Laguna Niguel • Richard Dixon, Lake Forest • Alta Duke, La Palma • Shirley McCracken, Anaheim • Bev Perry, Brea • Tod Ridgeway, Newport Beach

Riverside County: Bob Buster, Riverside County • Ron Loveridge, Riverside • Greg Pettis, Cathedral City • Andrea Puga, Corona • Ron Roberts, Temecula • Charles White, Moreno Valley

San Bernardino County: Jon Mikels, San Bernardino County • Bill Alexander, Rancho Cucamonga • Jim Bagley, Twentynine Palms • David Eshleman, Fontana • Lee Ann Garcia, Grand Terrace • Gwenn Norton-Perry, Chino Hills • Judith Valles, San Bernardino

Ventura County: Judy Mikels, Ventura County • Glen Becerra, Simi Valley • Donna De Paola, San Buenaventura • Toni Young, Port Hueneme

Riverside County Transportation Commission: Robin Lowe, Hemet

Ventura County Transportation Commission: Bill Davis, Simi Valley

To the Region:

The Regional Council of the Southern California Association of Governments (SCAG)—representing elected officials from 184 cities, the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura and their transportation commissions—proudly presents the 2001 Regional Transportation Plan (RTP) that was adopted by the Regional Council on April 12, 2001.

The 2001 RTP was developed with substantial technical and policy input and assistance from twelve task forces, local governments through subregional planning organizations, the county transportation commissions, Caltrans and other state and federal agencies, the environmental community, the business community and the general public. Numerous meetings were held over the past two years to focus on specific modes, investment strategies and policies. This process helped build consensus on important issues and provided direction to the staff in preparing the 2001 RTP.

The 2001 RTP presents an assessment of the overall growth and economic trends in the SCAG Region for the years 2001–2025 and provides strategic direction for investments during this time period. The Plan should serve as a catalyst for linking the various transportation agency investments within the SCAG Region to provide a cohesive, balanced and multi-modal transportation system that addresses regional goals and is consistent with federal and state requirements.

The 2001 RTP is a dynamic document and is intended to foster a continuing regional dialogue with the goal of creating a metropolitan transportation system that provides options and opportunities for all segments of the population in a fair and equitable manner.

SCAG will regularly review and update the Plan to meet changing conditions. We encourage the members of the Southern California community to continue to assist us in our efforts. Your continuing interest in the activities of SCAG are appreciated and we cordially invite you to continue to participate with the Regional Council in meeting the planning challenges facing Southern California.

Sincerely,

RONALD BATES

President, SCAG

Mayor Pro Tem, City of Los Alamitos

Leadership

Vision

Progress

Leadership, vision and **progress** which promote economic growth, personal well-being and livable communities for all Southern Californians.

The Association will accomplish this Mission by:

- ▶ Developing long-range regional plans and strategies that provide for efficient movement of people, goods and information; enhance economic growth and international trade; and improve the environment and quality of life.
- ▶ Providing quality information services and analysis for the Region.
- ▶ Using an inclusive decision-making process that resolves conflicts and encourages trust.
- ▶ Creating an educational and work environment that cultivates creativity, initiative and opportunity.

Funding: The preparation of this report was financed in part through grants from the United States Department of Transportation—Federal Highway Administration and the Federal Transit Administration—under provisions of the Transportation Equity Act for the 21st Century (TEA-21). Additional financial assistance was provided by the California State Department of Transportation.

Maps included in this report are produced in whole or in part from THOMAS BROS. MAPS digital database. These maps are reproduced with permission granted by THOMAS BROS. MAPS.

REGIONAL COUNCIL MEMBERS

OFFICERS:

PRESIDENT: Mayor Pro Tem Ron Bates, Los Alamitos

FIRST VICE PRESIDENT: Supervisor Jon Mikels, County of San Bernardino

SECOND VICE PRESIDENT: Councilmember Hal Bernson, Los Angeles

IMMEDIATE PAST PRESIDENT: Supervisor Zev Yaroslavsky, Los Angeles County

IMPERIAL COUNTY: Hank Kuiper, Imperial County • David Dhillon, El Centro

LOS ANGELES COUNTY: Yvonne Brathwaite Burke, Los Angeles County • Zev Yaroslavsky, Los Angeles County • Eileen Ansari, Diamond Bar • Bob Bartlett, Monrovia • Bruce Barrows, Cerritos • George Bass, Bell • Hal Bernson, Los Angeles • Robert Bruesch, Rosemead • Laura Chick, Los Angeles • Gene Daniels, Paramount • Jo Anne Darcy, Santa Clarita • John Ferraro, Los Angeles • Michael Feuer, Los Angeles • Ruth Galanter, Los Angeles • Ray Grabinski, Long Beach • Dee Hardison, Torrance • Mike Hernandez, Los Angeles • Nate Holden, Los Angeles • Sandra Jacobs, El Segundo • Lawrence Kirkley, Inglewood • Keith McCarthy, Downey • Cindy Miscikowski, Los Angeles • Stacey Murphy, Burbank • Pam O'Connor, Santa Monica • Nick Pacheco, Los Angeles • Alex Padilla, Los Angeles • Beatrice Proo, Pico Rivera • Mark Ridley-Thomas, Los Angeles • Richard Riordan, Los Angeles • Karen Rosenthal, Claremont • Marcine Shaw, Compton • Rudy Svorinich, Los Angeles • Paul Talbot, Alhambra • Sidney Tyler, Jr., Pasadena • Joel Wachs, Los Angeles • Rita Walters, Los Angeles • Dennis Washburn, Calabasas • Rob Webb, Long Beach

ORANGE COUNTY: Charles Smith, Orange County • Ron Bates, Los Alamitos • Ralph Bauer, Huntington Beach • Art Brown, Buena Park • Lou Bone, Tustin • Elizabeth Cowan, Costa Mesa • Cathryn DeYoung, Laguna Niguel • Richard Dixon, Lake Forest • Alta Duke, La Palma • Shirley McCracken, Anaheim • Bev Perry, Brea • Tod Ridgeway, Newport Beach

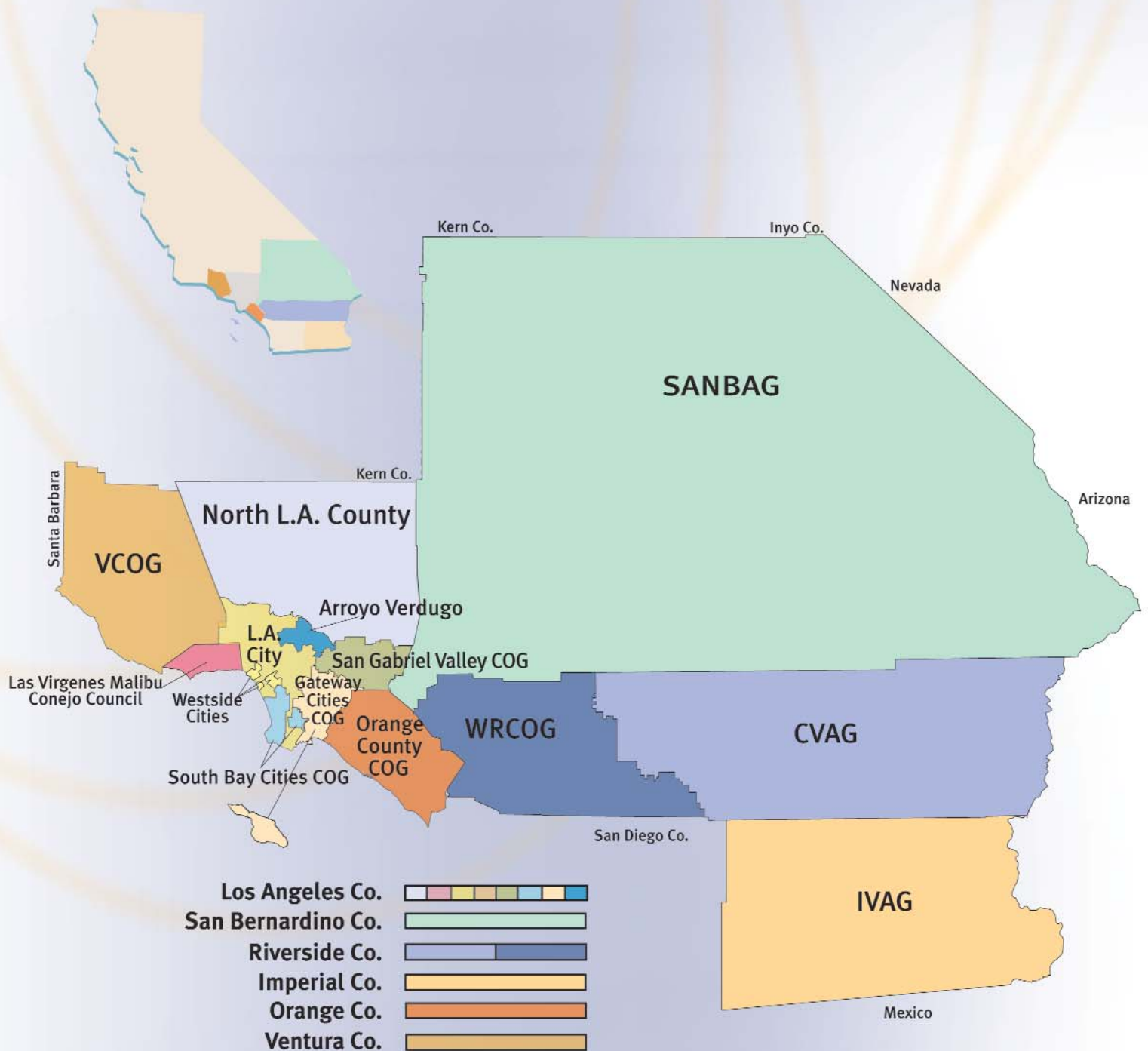
RIVERSIDE COUNTY: Bob Buster, Riverside County • Ron Loveridge, Riverside • Greg Pettis, Cathedral City • Andrea Puga, Corona • Ron Roberts, Temecula • Charles White, Moreno Valley

SAN BERNARDINO COUNTY: Jon Mikels, San Bernardino County • Bill Alexander, Rancho Cucamonga • Jim Bagley, Twentynine Palms • David Eshleman, Fontana • Lee Ann Garcia, Grand Terrace • Gwenn Norton-Perry, Chino Hills • Judith Valles, San Bernardino

VENTURA COUNTY: Judy Mikels, Ventura County • Glen Becerra, Simi Valley • Donna De Paola, San Buenaventura • Toni Young, Port Hueneme

RIVERSIDE COUNTY TRANSPORTATION COMMISSION: Robin Lowe, Hemet

VENTURA COUNTY TRANSPORTATION COMMISSION: Bill Davis, Simi Valley



SCAG is made up of 6 Counties which are divided into 14 subregions.

PAGE

I. EXECUTIVE SUMMARY

Challenges and Opportunities	4
Key Changes Since Adoption of the 1998 RTP	5
The Plan Update Process	9
Performance-Based Planning	10
Strategic Investments	13
Plan Performance	19

II. INTRODUCTION

Purpose	23
Organization of This Document	24

III. TRANSPORTATION PLANNING FRAMEWORK

Regional Goals	29
Transportation Planning Policies	29
Performance Measures	31
Transportation Planning Process	33

IV. PLANNING ASSUMPTIONS

Regional Setting	41
Population, Employment and Household Growth: The Policy Choice	48
Transportation Demand and Baseline Investments	49
Transportation and Air Quality Conformity Setting	50

V. STRATEGIC INVESTMENTS TO ACHIEVE REGIONAL GOALS

Introduction—Overview of the Future Regional Transportation System	55
Transportation System Setting	56
Strategic Investments	68
Highways and Arterials	69
Regional Transit	79
MAGLEV System	86
Goods Movement—Ports, Rail and Trucks	89
Aviation and Ground Access	98
Transportation Demand Management	102
Non-Motorized Transportation	105
Intelligent Transportation Systems	106
Land Use—Transportation	107

VI. FINANCE

Introduction	117
Revenue Sources	118
Conditions Impacting Regional Transportation Revenues	119
Baseline Expenditures	122
Funding Shortfall	124
Guiding Framework for Recommendations to Address the Region's Funding Shortfall	125
Recommended Funding Strategies to Implement SCAG's Regional Transportation Plan	126

VII. PLAN PERFORMANCE

Regional Performance Goals and Objectives	139
Transportation Conformity Analysis and Findings	143
Environmental Justice	148

VIII. FUTURE LINK

Corridor Preservation	157
Unconstrained Projects	160

IX. MONITORING OUR PROGRESS

Regional Transportation Improvement Program (RTIP)	163
RTIP Database Management	163
Conformity	163
Regional Transportation Monitoring	164
Highway Performance Monitoring System	164
VTM, Emission and Congestion Report	165
Transit System Performance Assessment	165
Intergovernmental Review	165
Benchmarking	166
The State of the Region	166
The State of the Commute	166

X. WHERE DO WE GO FROM HERE?

Resolution	171
------------	-----

Endnotes	179
----------	-----

Glossary & Acronyms	183
---------------------	-----

Lead Staff	193
------------	-----

	PAGE
LIST OF EXHIBITS	
Exhibit 4.1	1997 Population Density 42
Exhibit 4.2	2025 Population Density 43
Exhibit 4.3	Distribution of Population Increase Between 1997 and 2025 44
Exhibit 4.4	1997 Employment Density 45
Exhibit 4.5	2025 Employment Density 46
Exhibit 4.6	Distribution of Employment Increase Between 1997 and 2025 47
Exhibit 5.1	1997 Base Year Freeway Congestion 59
Exhibit 5.2	2000 Commuter Rail, Urban Rail and Rapid Bus System 63
Exhibit 5.3	2025 Regionally Significant Baseline Projects 70
Exhibit 5.4	2025 Baseline Freeway Congestion 73
Exhibit 5.5	2025 Plan Highway and Corridor Projects 76
Exhibit 5.6	2025 Plan Transit Corridor System 83
Exhibit 5.7	2025 Plan Maglev Projects 87
Exhibit 5.8	2025 Plan Goods Movement Projects 90
Exhibit 5.9	1997 Activity Centers 112
Exhibit 5.10	2025 Activity Centers 113
Exhibit 7.1	2025 Plan Freeway Congestion 141
Exhibit 8.1	Post-2025 Long-Range Corridors 159

LIST OF FIGURES

Figure 1.1	Key Final Baseline Growth Forecasts for the 2001 RTP	4
Figure 1.2	2001 Regional Transportation Plan Development	10
Figure 1.3	Total Transit for the SCAG Region	15
Figure 1.4	Regional Transit Per Capita Ridership	16
Figure 1.5	Aviation System (2025)	18
Figure 1.6	Percentage of Persons who Rideshare to Work	18
Figure 3.1	2001 Regional Transportation Plan Development	34
Figure 4.1	2025 Baseline Improvements for Highways and Arterials	49
Figure 4.2	Major Determinants of Mobile Source Emissions	50
Figure 5.1	Plan Improvements for Highway and Arterial Network	55
Figure 5.2	Percentage of Persons who Rideshare to Work	56
Figure 5.3	Percentage of Persons who Ride Transit to Work	56
Figure 5.4	Total Transit for the SCAG Region	58
Figure 5.5	1990 Means of Transportation to Work	64
Figure 5.6	Improvements in Highway/Arterial O&M	78
Figure 5.7	Regional Transit Per Capita Ridership	79
Figure 5.8	The Southwest Passage	96
Figure 5.9	Aviation Passenger Demand	99
Figure 6.1	SCAG Regional Revenues by Source	119
Figure 6.2	Mode Split of Public Cost for Baseline	123
Figure 6.3	Mode Split of Public Cost for New RTP Projects	123
Figure 6.4	Mode Split of Total Public Cost (Baseline and Plan)	123
Figure 6.5	Mode Split of Total Cost (Public and Private) of Baseline & New RTP Projects	123
Figure 6.6	Historical Increase in State Gas Tax	129
Figure 7.1	Person-Hours Traveled	142
Figure 7.2	Share of 2001 RTP Public Expenditures by Income Category	149
Figure 7.3	Summary of Increases in Accessibility Due to 2001 RTP Mode of Travel	149
Figure 7.4	Time Savings for All Travel Modes by Income Group	150
Figure 7.5	Time Savings for All Travel Modes by Ethnicity	151
Figure 7.6	Demographic of Persons Affected by Aviation Noise	152
Figure 7.7	Income Level of Households Affected by Aviation Noise	152
Figure 7.8	Weighted Average PM ₁₀ Exhaust Emissions Exposure Change	153
Figure 7.9	Weighted Average CO Emissions Exposure Change	154

PAGE

LIST OF TABLES

Table 1.1	2001 RTP Regional Aviation System	6
Table 1.2	Regional Checkbook	11
Table 1.3	2001 RTP Public Funding Strategy	11
Table 1.4	2001 RTP Regional Checkbook by County	12
Table 1.5	Cost of New RTP Projects	13
Table 1.6	Mobility and Accessibility Performance Results	19
Table 1.7	Reliability and Safety Performance Results	20
Table 1.8	2001 RTP Cost-Benefit Analysis	20
Table 3.1	Performance Objectives	32
Table 4.1	2001 RTP Finance Baseline Population, Employment and Household Forecast	41
Table 4.2	2001 RTP Population, Employment, and Household Growth in 2025: Baseline and Policy Forecast (by County)	48
Table 5.1	Highway and Arterial Network	57
Table 5.2	HOV Projects	71
Table 5.3	HOV Connector Projects	72
Table 5.4	Mixed-Flow Projects	74
Table 5.5	Toll Corridor Projects	75
Table 5.6	Smart Street Projects	77
Table 5.7	Investment in Arterials	78
Table 5.8	Baseline Transit Corridor Projects	80
Table 5.9	Constrained Transit Corridor Projects	81
Table 5.10	Truck Lane Projects	91
Table 5.11	Truck Climbing Lane Projects	92
Table 5.12	Truck Lane Study Projects	92
Table 5.13	Grade Crossing Corridor Projects	93
Table 5.14	Air Cargo Growth	98
Table 5.15	Aviation System	100
Table 5.16	Transportation Demand Management and Non-Motorized Investments	102
Table 6.1	Regional Checkbook (1998 RTP vs. 2001 RTP)	117
Table 6.2	Revenue Forecast, 1997-2025	118
Table 6.3	Regional Baseline Costs: 1998 RTP vs. 2001 RTP	122
Table 6.4	2001 RTP Regional Checkbook by County	124
Table 6.5	2001 RTP Public Funding Strategy	130
Table 6.6	2001 RTP Regional Checkbook	131
Table 6.7	Regional Portion of International Trade	134
Table 7.1	Mobility and Accessibility Performance Results	139
Table 7.2	Reliability and Safety Performance Results	140
Table 7.3	2001 RTP Cost-Benefit Analysis	140
Table 7.4	Average Annual Economic Impacts of 2001 RTP	142
Table 7.5	Summary of Regional Emissions Analyses	144
Table 8.1	Post-2025 Long-Range Corridors	158



I.

executive summary

INTRODUCTION

The Southern California Association of Governments (SCAG) is the Metropolitan Planning Organization (MPO) for six Southern California counties. SCAG's responsibilities include development of a coordinated and cohesive long-range transportation plan that addresses the needs of the vast metropolitan area. The 2001 Regional Transportation Plan (RTP) represents the culmination of more than two years of work involving dozens of public agencies, 184 cities, hundreds of local, county, regional and state officials, the business community, environmental groups, non-profit organizations and a broad-based public outreach effort.

The SCAG Region is the largest metropolitan planning area in the United States, encompassing 38,000 square miles, six counties and 184 cities. The Region is loosely divided into 14 subregions and is one of the largest concentrations of population, employment, income, business, industry and finance in the world. The six-county SCAG Region is home to more than 17 million people, nearly half of the population of the State of California. The Gross National Product (GNP) equivalent for the Region shows that Southern California has the 12th highest GNP in the world with 7.4 million jobs, while the State as a whole has an equivalent of the 6th highest GNP in the world.

The 2001 RTP is the required three-year update to the 1998 Regional Transportation Plan (98 RTP), adopted by the SCAG Regional Council in April 1998. Concurrent with the adoption of the 1998 RTP, the Regional Council directed staff to work toward development of regional consensus on a number of key issues in the 2001 RTP. The key issues were:

- growth forecasts
- long-term transportation financing needs
- the future regional aviation system

The RTP presents an assessment of the overall growth and economic trends in the SCAG Region for the years 2001-2025 and provides strategic direction for investments during this time period. The RTP is a critical document in that it is necessary to assure federal and state funding. It should serve as a catalyst for linking the various transportation agency investments within the SCAG Region to provide a cohesive, balanced and multi-modal transportation system that addresses regional goals and is consistent with federal and state requirements. Given the size and diversity of the SCAG Region, the development of consensus on future transportation investments among stakeholders is truly a challenge.

This Executive Summary provides an overview of the 2001 RTP, including future trends affecting the regional transportation system, recommendations for addressing long-term financing needs and strategic investments that will perform best to meet the mobility, accessibility and other goals of the Region's people and businesses.

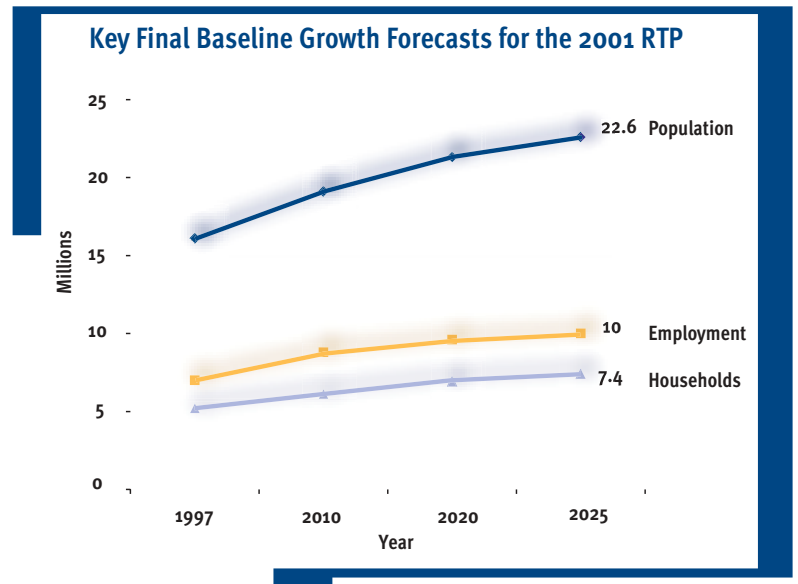


CHALLENGES AND OPPORTUNITIES

While Southern California is one of the most prosperous and productive metropolitan areas in the world, the Region faces tremendous challenges as we look toward the future. Population is expected to increase by 40 percent from 1997 to 2025, employment is expected to increase by 43 percent and households by 30 percent. Figure 1.1 shows the key growth assumptions used in the 2001 RTP.

Not only is the population growing but the composition of the Region's population is also changing. Significant trends include the aging of the population and the growing proportion of Hispanic and Asian/Pacific Islanders. The share of elderly persons in the Region, aged 65 and above, is expected to rise to 15.4 percent in 2025 from 9.9 percent in 1997. The Hispanic share of the regional population is projected to surpass that of non-Hispanic whites by 2003 and to reach 51 percent by 2025. These two factors will result in changing, but yet unknown, travel patterns and new mobility needs for large portions of the population.

Figure 1.1



The Internet economy and e-commerce will also affect almost every aspect of our lives and can potentially affect land use patterns, air quality, traffic congestion and local sales tax revenues (which currently support transportation investment) as consumer and travel behavior changes. Taken together, these trends—population and job growth, aging population and e-commerce—pose unprecedented challenges and uncertainties in the development of the 2001 RTP.

In addition to accommodating the explosive growth projected for the Region and adapting to the Internet economy, meeting other regional transportation goals is a formidable task. These include improving transportation mobility for all people and enhancing the movement of goods within the subregions and the Region. In addition, we must ensure that transportation investments are cost-effective, protect the environment, promote energy efficiency and enhance the quality of life.

With challenges come opportunities. In updating the RTP, SCAG established an unprecedented, inclusive and ongoing planning process that brought together public agencies and private entities, environmental and community groups and the public to ensure that all stakeholders had opportunities to actively participate in setting the Region's future transportation investment priorities.

KEY CHANGES SINCE ADOPTION OF THE 1998 RTP

Transportation planning is a continuous process and the following elements of the Plan have changed since the adoption of the 1998 RTP. Each of these areas is discussed briefly below and in greater detail in various sections of the RTP.

- ▶ Growth Forecasts
- ▶ Financial Assumptions
- ▶ Regional Aviation System
- ▶ Regional Transit Services
- ▶ Transportation and Air Quality Conformity
- ▶ Environmental Justice

GROWTH FORECASTS

The growth forecasts that were made in 1998 were overstated for 2020, which was the final year of that plan. Nevertheless, tremendous growth is projected over the next twenty-five years, with an expected increase of almost 7 million people, 3 million jobs and 2.2 million households. As discussed earlier in this Executive Summary, the projected growth in the Region is one of the biggest challenges that SCAG will face as steward of the metropolitan transportation system. Figure 1.1 shows the current assumptions for growth in the SCAG Region over the life of the 2001 RTP.



FINANCIAL ASSUMPTIONS

The Long-Range Transportation Finance Task Force was created to develop financial assumptions for the 2001 RTP. The need to change previous assumptions became readily apparent given events that transpired since the 1998 RTP was adopted. Some conditions considered are:

- ▶ The sunset of local transportation sales taxes in Imperial (2010), Orange (2011), San Bernardino (2010) and Riverside (2009) counties during the time frame of the RTP (note: Los Angeles County has a permanent sales tax dedicated to transportation; it does not sunset like the other “self-help” counties sales taxes. Ventura County does not have a sales tax dedicated to transportation)
- ▶ The projected loss of gasoline tax revenues due to inflation, fuel efficiency and alternative fuels
- ▶ Increases in the projected costs of operating and maintaining the existing regional transportation system

Taken together, these factors influenced the availability of future revenues to fund the RTP. After thorough analyses of many different options to raise needed revenues, the Task Force developed a funding strategy that seeks to maintain transportation revenues that the Region could potentially lose in the years to come. The funding strategy is discussed later in this Executive Summary and in detail in Chapter VI of the Plan.

Table 1.1

REGIONAL AVIATION SYSTEM

The 2001 RTP proposes a decentralized regional aviation system. The Plan proposes development of aviation facilities where unmet demand is greatest and also where population growth is expected to be significant, in order to meet demand and reduce impacts. The Plan also proposes various strategies to promote use of underutilized facilities, including high-speed rail linkages between airports and market incentives.

In the adopted scenario, LAX is constrained to its existing physical capacity, estimated at 78 MAP. Burbank (BUR), John Wayne (SNA) and Long Beach (LGB) are constrained to their legal or existing physical capacities. Substantial growth is forecast at El Toro (ELT) and Ontario (ONT). Market incentives have been included to disperse demand to outlying airports to the extent possible. These outlying airports include Palmdale (PMD), San Bernardino International Airport (SBD), Southern California Logistics Airport (SCI) and March Global Port (MAR).

2001 RTP REGIONAL AVIATION SYSTEM			
	Passengers (in millions)	Air Cargo (thousands of tons)	Operations (in thousands)
BUR	9.4	73.2	112
ELT	29.7	1693.8	321.1
SNA	8.4	25.3	120.7
LAX	78	2975.8	660.3
LGB	3	63	43.6
MAR	1.7	1079.5	44.4
ONT	30	2246	366.4
PSP	2.9	19.9	44.8
PMD	1.7	124.4	28.4
MUG	0	0	0
SUB	1.8	878.9	40.4
SCI	0.8	320.3	21
TOTAL	167	9500	1803

TRANSIT SERVICES

The 1998 RTP-projected substantial savings could be realized through restructuring transit services and implementing a vast network of privately funded Smart Shuttles—demand-responsive services. While Smart Shuttles can play a role in the future provision of transit services, the pilot projects have been implemented and demonstrate that this will largely be a niche market. Therefore, we need to change our assumptions regarding the financing and viability of such services and the role they will play in the future. The Transit Corridor Task Force and the Regional Transit Task Force discussed the future of transit at length and recommended a set of investments that, if successful, will enable transit to retain its market share in 2025—equivalent to 34.9 trips per person per year. Given projected population growth of 40 percent, achieving this mode split is an ambitious goal and would result in approximately 800 million new annual transit trips in the Region. Transit investments are discussed further in this Executive Summary and in detail in Chapter V.

TRANSPORTATION AND AIR QUALITY CONFORMITY

Under the federal regulations and in the federally designated non-attainment and maintenance areas, the regional transportation plans, programs and projects must comply with the requirements of the Federal Clean Air Act (CAA) as reflected in the Transportation Conformity Rule.

Emissions attributed to on-road mobile sources can have adverse impacts on health. On-road motor vehicles have become one of the major contributing sources for criteria pollutants. Major criteria pollutants include volatile organic compounds (VOC), nitrogen oxides (NO_x), carbon monoxide (CO), particulate matters in size of 10 microns or less (PM₁₀) and nitrogen dioxide (NO₂). To reduce the adverse impact of these pollutants on health, the Environmental Protection Agency (EPA) designates the non-attainment areas by pollutant and the CAA sets the specific attainment date by area by pollutant. When a non-attainment area achieves its attainment goal, then EPA will re-designate it as a maintenance area for the next 10-20 years.

The SCAG Region has one or more federally designated non-attainment and /or maintenance areas, with the exception of the eastern part of Riverside County¹. Thus, the RTP is subject to transportation conformity analysis and determination.

The conformity status of the 1998 RTP expires on June 9, 2001. The 2001 RTP and the associated conformity analysis were developed to replace the 1998 RTP.

Since the 1998 RTP, two transportation and air quality related events have had a temporary impact on the transportation planning processes—they adversely impacted the conformity findings of the South Coast Air Basin (SCAB) portion of the 2000/02-2005/06 Regional Transportation Improvement Program (2000 RTIP). These two events were:

- Replacement of the two segments of the Metro RedLine with the Rapid Bus, Rapid Transit and Light Rail projects in Los Angeles County was required. The rail and transit projects are categorically identified as transportation control measure (TCM) projects in the 1997 Ozone State Implementation Plan (SIP) developed for the SCAB.
- The California Air Resources Board (ARB) has recognized the need to remedy the SIP shortfall for those control measures in which the state was responsible for implementation, including the Inspection and Maintenance (I/M) Program. The SCAB portion of the Region was more affected by the SIP shortfalls than other federal non-attainment areas in the SCAG Region.

These two issues have been resolved and no longer affect the conformity analysis of the 2001 RTP.

Since the April 1998 adoption of the 1998 RTP by the Regional Council, the Transportation Conformity Rule was revised by a federal court ruling. The U.S. Court of Appeals March 2, 1999 ruling in *EDF v. EPA* mandated that emissions budgets approved or found adequate by the Environmental Protection Agency (EPA) can be used for conformity determination. Under the Transportation Conformity Rule, the 2001 RTP must pass the following four tests to continue receiving transportation funds from the federal sources:

- Regional Emission Analysis
- Timely Implementation of Transportation Control Measures (TCMs) Analysis

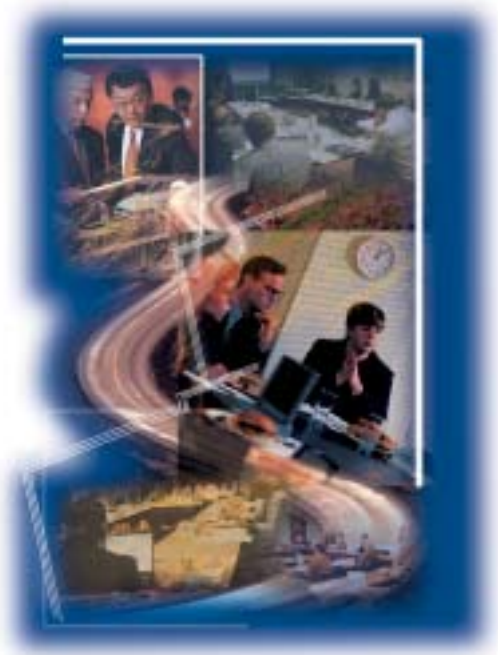
- Fiscal Constraint Demonstration
- Interagency Consultation and Public Involvement Process

Generally, to meet the first two tests—the Regional Emission Analysis and the Timely Implementation of TCMs Analysis—SCAG must explicitly demonstrate that the regional emissions resulting from implementation of the 2001 RTP policies, programs and projects are consistent with and conform to the applicable State Implementation Plan's (SIP's) goals and objectives for air quality.

The 2001 RTP is consistent with all federal requirements and conforms to the respective applicable SIPs developed for the non-attainment and maintenance areas in the SCAG Region.

In response to the federal agencies' request, the conformity requirements, Regional Emissions Analysis, Timely Implementation of TCMs and the associated conformity findings are addressed in a separate report titled "Transportation Conformity Report," which is included in the Technical Appendix. The other required conformity tests—the Fiscal Constraint Demonstration and the Interagency Consultation and Public Involvement Process—are addressed in the Financial Plan and in the Public Involvement and Environmental Justice documents respectively.

The 2001 RTP and the associated appendices—the Transportation Conformity Report, the Financial Plan and the Public Involvement and Environmental Justice document—collectively form a set of documentation for the conformity determination of the 2001 RTP.



ENVIRONMENTAL JUSTICE

Since the 1998 RTP was adopted, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) have renewed their commitment to assure environmental justice in the programs they fund. This was done to ensure compliance with Title VI of the Civil Rights Act of 1964 and the President's 1994 Executive Order on Environmental Justice. SCAG seeks to ensure that the RTP's benefits and burdens are not inequitably distributed across groups based on race, income, age or disability through a two-part approach adopted by the TCC in October 2000. The program includes public outreach efforts to assure that all members of the public have the opportunity to meaningfully participate in the planning process. These efforts specifically target minority and low-income communities throughout the Region and are intended to listen to and address their concerns. The analysis component of the Environmental Justice procedures assesses the geographic distribution of environmental impacts and a calculation of the net benefits of the RTP, including accessibility and mobility. Chapter VII of the RTP includes the results of these analysis.

THE PLAN UPDATE PROCESS

STAKEHOLDER INVOLVEMENT

To meet the three-year RTP update schedule required by the Transportation Equity Act for the 21st Century (TEA-21) and to address key issues as directed by the Regional Council, SCAG initiated a bottom-up collaborative planning process that included the formation of twelve task forces and numerous subcommittees. Each task force had a specific mission and addressed issues in as much detail as time allowed, with the goal of making recommendations to SCAG's Transportation and Communications Committee (TCC), which then provided overall policy direction to the development of the RTP. Task force membership included hundreds of elected officials, local and regional officials, representatives of county transportation commissions (CTCs) and the subregions, representatives of federal and state agencies and representatives of community groups and environmental organizations. Hundreds of meetings were held over the past two years to focus on specific modes, investment strategies or policies. This process helped build consensus on important issues and provided direction to the staff in preparing the 2001 RTP. A complete listing of Task Force members is provided in the Technical Appendix to the RTP.

Regional Plan Task Forces and Key Subcommittees

RTP Technical Advisory Committee (TAC)

Growth / Forecast

Long-Range Transportation Finance

Aviation

Transportation Corridors

High-Speed Rail

Regional Transit

Four Corners

Truck Lanes

Goods Movement

Modeling

Subregional Coordinators Group

PUBLIC OUTREACH

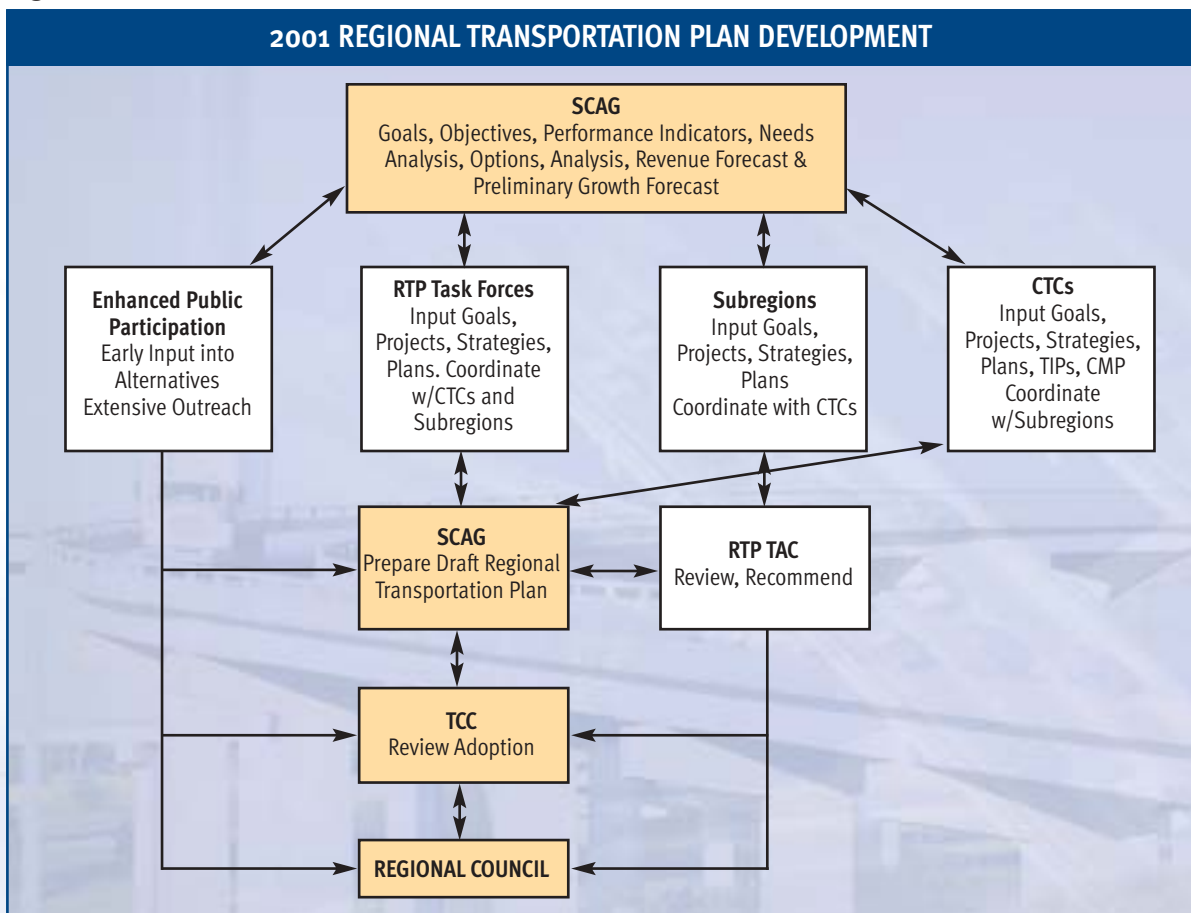
At the beginning of the 2001 RTP process, SCAG embarked on an extensive public outreach process to ensure input and community feedback as the update progressed. This effort complemented the bottom-up planning process and relied heavily on the 14 subregions within the SCAG Region. The subregions are ideally suited for public outreach as they maintain direct lines of communication with community groups, businesses, transit operators, environmental organizations, the public within their cities and local communities. In eight of the subregions, local organizations and groups of cities directly conducted the outreach process, with SCAG support. In the other six subregions SCAG provided consultant-led outreach efforts to ensure that no subregion was left out of the process. As evidence of extensive public outreach, SCAG received more than 1,500 comments on the Draft 2001 RTP and those comments were taken into consideration in the finalization of the 2001 RTP. A summary of the comments and SCAG responses can be found in the Technical Appendix to the RTP.

PERFORMANCE-BASED PLANNING

In updating the RTP, SCAG continued with its performance-based approach to transportation planning and has adopted regional goals and policies that serve as guideposts in developing the Plan. To meet the challenges of performance-based planning, SCAG developed Performance Indicators that consider transportation from a “user’s perspective.” Everyday, millions of people and thousands of businesses consider rush hour congestion, speeds, reliability of service, parking costs and other factors before making trip choices. SCAG’s Performance Indicators are based on these very same “common sense” criteria.

In order to measure progress toward achieving regional goals, SCAG developed quantifiable Performance Indicators where possible, and these form the basis upon which SCAG can measure progress. The regional goals from the 1998 RTP were updated to emphasize subregional and market-based approaches to improved mobility. Refer to Chapter III of the RTP to review the regional goals, planning policies and objectives and Performance Indicators. Figure 1.2 shows how the various elements of the transportation planning process come together in the development of the RTP.

Figure 1.2



FEDERAL AND STATE PLANNING REQUIREMENTS

In addition to the adoption of regional goals and policies, objectives and performance indicators, the RTP must meet various federal and state requirements for transportation plans in metropolitan areas. These requirements are discussed in detail in Chapter III of the RTP.

FINANCIAL RESOURCES

Concurrent with adoption of the 1998 RTP, the Regional Council directed staff to review the long-term transportation revenue assumptions and to address associated issues in the 2001 RTP. This direction led to the creation and mission of the Long-Range Transportation Finance Task Force. As a result of careful analysis and deliberation of options, the need to change the financial assumptions for the 2001 RTP became evident.

The updated revenue forecast shows that the Region would not have enough public funds to support new RTP projects. In recognizing the need for a regional funding strategy to fund new regional transportation facilities and services, the Finance Task Force identified approximately \$24 billion in additional public revenues to offset the Region's projected revenue shortfall as shown in Table 1.2.

The RTP must be fiscally constrained in accordance with federal regulations, which means that revenues must reasonably be available over the time frame of the RTP. If revenue shortfalls are anticipated and additional funding is needed, then the financial plan must also identify additional revenue streams and include a strategy for securing the revenue.

Table 1.2

REGIONAL CHECKBOOK CONSTANT 1997 DOLLARS (BILLIONS)	
Total Baseline Revenue	\$100
Public Funding Strategy	\$24
Total Revenues	\$124
RTIP & Other Commitments	\$27
Operations & Maintenance	\$64
Bonds	\$9
Baseline Costs	\$100
Net Public Funding for New RTP Projects	\$24

Table 1.3

2001 RTP PUBLIC FUNDING STRATEGY (CONSTANT 1997 \$ IN BILLIONS)	
Funding Component	\$
Continue Using Revenues from the State Sales Tax on Gasoline	6
Continue Local Transportation Sales Taxes Where Necessary	3
Adjust State Motor Vehicle Fuel Excise Tax and User-Fees to Maintain Historical Purchasing Power	15
Total	24

In August 2000, the TCC endorsed principles governing the funding strategy for the 2001 RTP Update. These principles have guided the development of the following financial assumptions, which seek to maintain particular revenue streams that the Region could potentially lose in future years:

- ▶ The state sales tax on gasoline will continue to be dedicated to transportation after 2006.
- ▶ Local transportation sales taxes are extended where necessary.
- ▶ An adjustment is made to the state motor vehicle fuel excise tax rate and user-fees to maintain historical purchasing power. This component includes the option to implement a revenue raising mechanism on alternative fuel vehicles to offset the potential loss in gasoline tax revenues.

As a result of these assumptions, the Regional Checkbook for the 2001 RTP shows \$24 billion in public revenues available for new projects as shown in Tables 1.2 and 1.3 (further discussed in Chapter V). The available revenue is the net amount after subtracting Baseline costs. Baseline costs include short-term committed projects, in addition to operations and maintenance expenses of the existing transit and roadway system. Committed projects include those in the 2000-2006 Regional Transportation Improvement Program (RTIP) and projects in the Governor's Traffic Congestion Relief Program (TCRP). Table 1.4 provides a county by county breakdown of Baseline revenues, costs and public funding strategy.

Table 1.4

2001 RTP REGIONAL CHECKBOOK BY COUNTY						
County	Baseline Revenues	Baseline Costs	Net Balance	Public Cost of New RTP Projects	Funding Shortfall	Public Funding Strategy
Imperial	\$0.78	\$0.64	\$0.14	\$0.38	\$(0.24)	\$0.24
Los Angeles	\$65.27	\$66.37	\$(1.09)	\$9.46	\$(10.55)	\$10.55
Orange	\$17.49	\$17.02	\$0.46	\$3.94	\$(3.47)	\$3.47
Riverside	\$5.91	\$6.10	\$(0.19)	\$4.20	\$(4.39)	\$4.39
San Bernardino	\$8.01	\$7.71	\$0.30	\$5.20	\$(4.90)	\$4.90
Ventura	\$2.49	\$2.30	\$0.19	\$1.15	\$(0.96)	\$0.96
Total	\$99.96	\$100.14	\$(0.18)	\$24.33	\$(24.51)	\$24.51

Notes:

- 1) Numbers may not add correctly due to rounding.
- 2) Includes revenues from the Governor's Traffic Congestion Relief Plan. Local gas tax subventions are not included in the revenue forecast, assuming that the subventions are not used for "regionally significant" projects. The EPA's use of the term "regionally significant" is intended to include those transportation projects that would have significant impacts on regional travel, emissions and air quality.
- 3) Baseline costs include current TIP (2001-2006) capital projects that are "regionally significant." Traffic Congestion Relief Plan projects are also included. Additionally, committed sales tax revenues and funds from other sources for Measure projects are included. Measure tax project costs are spread between "pay as you go" financing and debt financing. Includes anticipated new debt service issues during the RTP period. Also includes debt bonded against forecasted TCA toll revenues in Orange County. Also included are Operations and Maintenance expenses for both transit and roads, Caltrans 2000 SHOPP and transit capital replacement/rehabilitation. Forecasted transit and roadway O&M and capital replacement are assumed for the existing SCAG regional transportation infrastructure and new capital projects in the 2001/2006 RTIP. See Technical Appendix for further information.
- 4) Revenues and Costs are in constant 1997 dollars, millions.
- 5) The Region's public funding strategy does not assume the extension of Measure M in Orange County nor the imposition of a local transportation sales tax in Ventura County.

SCAG recognizes that the Region's public funding strategy would only offset about half the total cost of the new RTP projects. As Table 1.5 indicates, the new RTP projects are estimated to cost about \$44 billion. The Region's public funding strategy would offset about \$24 billion and the remaining \$20 billion gap would require innovative financing including public-private partnerships, debt financing efforts and user charges.

For example, dedicated truck lanes are assumed to be partially funded with user charges and HOT lanes will be constructed by the private sector. In addition, U.S. DOT's Transportation Infrastructure Finance and Innovation Act (TIFIA) is a program that provides federal credit assistance (e.g., direct loans, loan guarantees and lines of credit) to large-scale transportation projects of national significance (e.g., Alameda Corridor).

Table 1.5

COST OF NEW RTP PROJECTS (CONSTANT 1997 DOLLARS IN BILLIONS)	
Cost to be Funded by Public Funding Strategy	\$24
Cost to be Funded by Innovative Financing	\$20
Total Cost	\$44

STRATEGIC INVESTMENTS

As noted earlier in this Executive Summary, in adopting the 1998 RTP, the Regional Council directed staff to address three principal issues in this 2001 RTP. Those issues are:

- ▶ growth forecasts;
- ▶ long-term transportation financing needs; and
- ▶ the future regional aviation system.

Growth in the Region is inevitable. The 2001 RTP identifies investments that will help the Region accommodate growth in the most sensible way by investing strategically in programs and projects that will help shape the Region's growth along existing and improved major transportation corridors. The guiding principles used in developing the strategic investments included in this plan may be summarized in three principles: **1)** Target investments on best-performing projects, **2)** Give high priority to maintaining and operating the system and **3)** Maximize system utilization.

The investment program can be summarized as follows, with detailed discussions of investments included in Chapter V. In addition, a project listing for each county is provided in the Technical Appendix.

HIGHWAYS AND ARTERIALS

The network of highways and arterials in the SCAG Region consists of 9,000 lane miles of freeways, including 580 lane miles of High Occupancy Vehicle (HOV) lanes. In addition, there are 32,000 miles of major and minor arterials. This network of highways and arterials carries 99 percent of all trips, including trips on buses. This amounts to over 54 million vehicle trips per day on the regional highway and arterial system.

The average speed for the 24-hour period on the highway and arterial system is about 38 miles per hour. However, during the morning peak period in some of the heaviest corridors, the average travel speed is less than 20 miles per hour in the congested direction, far worse than the average system-wide speed. In fact, in 1997 the average traveler spent approximately 18 percent of travel time in congestion delay, with an average commute trip of 15 miles taking about 30 minutes. If we were to do nothing more than currently committed projects, we could experience an increase in congestion delay within the Region of over 100 percent by 2025. The aggregated daily vehicle hours spent in the Region could increase by over 50 percent to about 14 million hours and a 15 mile commute trip could take, on average, about 45 minutes compared to 30 minutes in 1997. Our investment strategy is to provide maximum relief to the most heavily traveled commute corridors.

HIGH OCCUPANCY VEHICLE LANE (HOV) GAP CLOSURES, CONNECTORS AND HOT LANES

Investments include HOV connectors, HOV gap closures and the completion of the regional HOV system. In addition, selected high occupancy toll lane (HOT lanes) projects are recommended in Orange and Riverside counties. Table 5.2 in Chapter V shows the recommended HOV Gap Closures. Table 5.3 shows the HOV connector projects and Table 5.5 shows the HOT lanes. These investments total \$1.9 billion in public costs.

MIXED-FLOW IMPROVEMENTS

Several new mixed-flow freeway lanes are proposed to close gaps, increase capacity in certain congested commute corridors and facilitate county-to-county travel, especially from population-rich to employment-rich areas. Regionally significant mixed-flow improvements are shown in Table 5.4 in Chapter V. The public costs for these projects are \$5.4 billion.

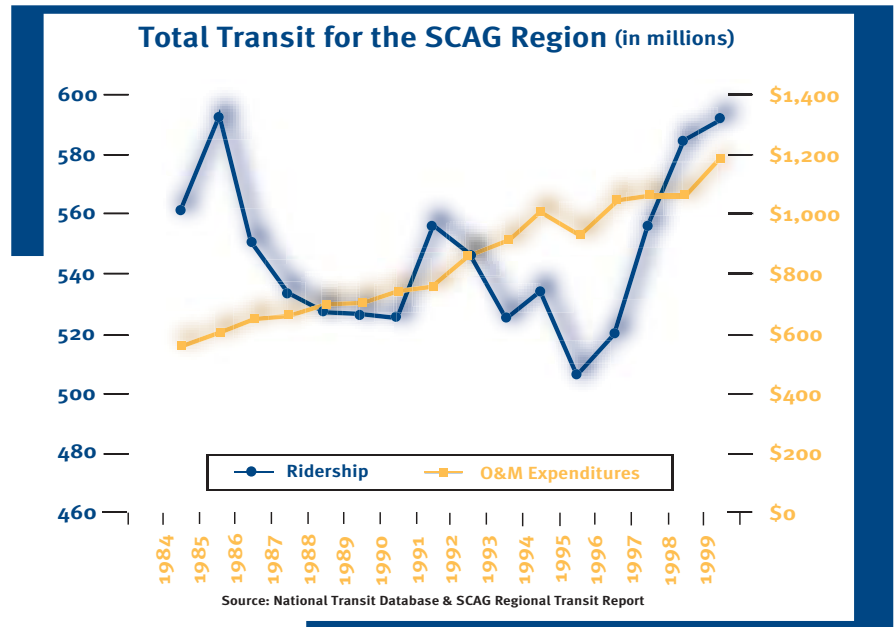
ARTERIAL INVESTMENTS

Arterials are recognized for their importance to regional mobility. Arterials account for over 65 percent of the total road network and carry 50 percent of the total traffic. Therefore, the 2001 RTP recommends substantial funding for arterial improvements beyond operations and maintenance. These investments total \$2.8 billion in public costs. Please refer to Tables 5.6 and 5.7 in Chapter V for more information about arterial investments. The 2001 RTP includes additional investments to improve arterial related travel. This includes Intelligent Transportation System (ITS) and grade separation projects where these investments would help speed traffic flow and optimize the operation of the arterial system.

REGIONAL TRANSIT

Southern California contains a vast transit network comprised of several modes of public transportation. The largest of the transit networks and backbone of the system is express and local bus service. This service provides an alternative to the auto as a means for people to get to and from work as well as make discretionary trips. The fixed guideway network includes interregional, computer, urban and light rail. Local service is coordinated with rail service to create seamless transit and help increase overall transit trips. Throughout the Region, there are smaller transit services, shuttles

Figure 1.3



and circulators, which function to provide the public with a means of transportation. These services are also great feeders for the rail system, as well as in niche markets like city centers.

Recently, the Region has seen a substantial increase in transit ridership—16 percent between 1995 and 1999. Transit ridership, though still representing a vital component of our transportation network, has steadily decreased as a percentage of all daily trips.

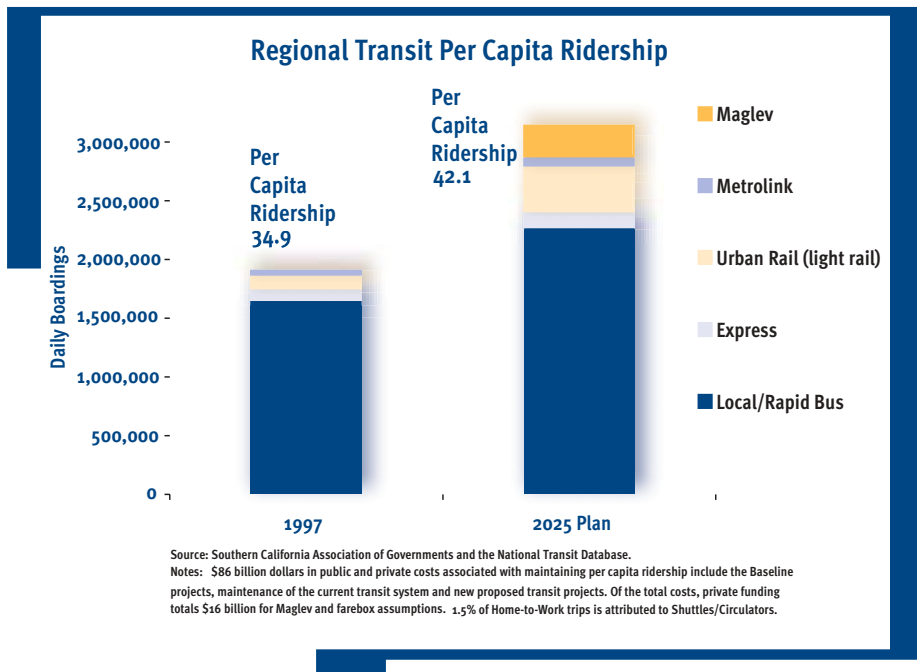
Prior to 1995, the Region's transit

ridership declined in absolute numbers, from a high in 1985 to an all time low in 1995, representing a loss of 100 million riders. The Region is just now approaching the previous ridership peak level of 1985. Many people continue to depend on reliable transit service to participate in the economic, cultural and social benefits of Southern California. An enormous challenge that we face is to deliver and improve transit service to provide both the transit-dependent population and discretionary riders with more effective and attractive service. Figure 1.3 shows the total transit ridership and investment over time for regional transit.

The 1998 RTP focused on the cost and delivery of transit services and proposed that Smart Shuttle programs could play a major role in transit delivery. We now recognize that Smart Shuttles may have a role, albeit limited, in certain niche markets. Nevertheless, the availability of travel choices, including transit, is an essential element of the RTP and the Plan recognizes the importance of transit in the Region. The goal of public transportation is to provide an attractive alternative to the use of a single occupant automobile for those who own cars and to provide needed transportation services to people who do not own a car. Public transportation strategies that are included in this plan were developed with these goals in mind. In addition to recommending new funding for operations and maintenance, this plan recommends strategic investments in the best performing transit projects, including rapid bus projects, commuter rail services, light rail and transit service expansion. The 2001 RTP also recommends the implementation of a high-speed magnetic levitation transportation (Maglev) system, provided a financing strategy can be developed.

The goal for the Region's public transportation services, which was adopted by the TCC, is to maintain the 1997 per capita ridership level for transit. This equates to 34.9 trips per person per year. Given the projected increase in population, this would mean that approximately 800 million new annual transit trips would be made in the Region in 2025. Several strategies will need to be aggressively implemented to achieve this goal. These include: significant increases in service availability such as those planned for the Metrolink commuter rail service, investing in third-tier services such as community-based transit, improved transit service management, establishing transit centers where convenient, the making of multi-modal transfers and implementing complementary transportation demand management strategies.

Figure 1.4



In addition, the highly successful Rapid Bus program of the LACMTA will be implemented on numerous heavily traveled corridors and many bus lines will be rerouted to support the existing and proposed urban and commuter rail systems. The RTP also recommends deployment of shuttles and circulators, which would also feed into the current transit system. Figure 1.4 shows the respective share of transit ridership that the proposed investments could serve in order to achieve the transit ridership goal. Specific recommendations for transit investments can be found in Chapter V of the RTP. Table 5.9 in Chapter V shows the proposed transit investments and Exhibit 5.6 shows the proposed transit corridors. Total public costs for these new investments are \$5.7 billion.

MAGLEV SYSTEM

Another important component of the transit investment strategy is the implementation of Intra-Regional High Speed Rail Maglev using magnetic levitation (Maglev) technology. This high-speed rail service would connect major activity and transportation centers in Los Angeles, Orange, Riverside and San Bernardino Counties. Maglev will increase accessibility to the Region's major activity centers and provide congestion relief. The system would be comprised of four lines. The first line will connect LAX to March Global Port by 2010. The complete system would be in place by 2025.

GOODS MOVEMENT

The ability of the SCAG Region to move goods efficiently and reliably lies at the center of our Region's future prosperity. With this in mind, the 2001 RTP recommends key investments in the major Goods Movement corridors and modes, including truck lanes, railroad grade crossing projects, ports and port access and air cargo facilities. While funding for the ports and airports projects are provided through the owners and operators of those facilities, improvements in the connections to the surface transportation system are crucial to an intermodal and seamless Goods Movement system in the future.

Truck Lanes

The 2001 RTP includes major investments totaling \$3.6 billion to improve truck movement throughout the Region, including dedicated truck lane projects in the SR-60 and I-15 corridors. In addition, several truck climbing lane projects are included in the Plan, as are studies of dedicated truck lanes on I-710 and the I-5. In addition to these

projects, the ports and airports will be making investments in their facilities to accommodate the anticipated growth in Goods Movement by trucks over the time frame of the RTP. Tables 5.10, 5.11 and 5.12 in Chapter V provide specific information on investments in truck lanes.

Railroad Grade Crossing Projects

The SCAG Region is served by two main line railroads (the Burlington Northern and Santa Fe Railway Co [BNSF] and the Union Pacific Railroad [UP]). These railroads link Southern California with other regions and provide freight rail service within California. In 1995 these railroads moved more than 91 million tons of cargo in and out of Southern California.

A total of \$1.8 billion is recommended for grade crossing improvement projects including the Orange County Gateway (Orangethorpe) Corridor Project. In addition, grade crossing projects are recommended on major railroad lines in Riverside, San Bernardino and Imperial Counties, North Los Angeles County and in the Gateway Cities, which lies at the center of regional truck movement due to its proximity to the Ports of Los Angeles and Long Beach. Table 5.13 in Chapter V shows the proposed grade crossing corridor projects.



Ports and Port Access

The three major seaports—Los Angeles, Long Beach and Hueneme—serve over 80 ocean carriers and are responsible for providing a major link between the West Coast of the United States and the Pacific Rim countries. These three ports moved more than 120 million tons of cargo in 1995 and the Ports of Long Beach and Los Angeles dominate the container trade in the Americas by shipping and receiving more than 5 million containers annually. The Ports of Los Angeles, Long Beach and Hueneme will invest over \$6 billion of port funding on rail and highway access over the next 25 years.

Other components of the Goods Movement element of the Plan include development of the Southwest Passage, a proposed major trade corridor extending from the SCAG Region east to Texas to facilitate major freight flows to and from the Pacific Rim and the NAFTA countries. The comple-

tion of the Alameda Corridor project is also included in the Plan as are the following Goods Movement investments: a major railroad main line productivity study for the east-west lines between downtown rail yards and the Inland Empire; studies of inland ports, inland domestic intermodal freight terminals, container matching and dispatching to reduce empty truck trip movements; and air cargo improvements including airport ground access and development of former military bases as all-cargo or mixed-use airport facilities. Exhibit 5.8 in Chapter V shows the proposed Goods Movement projects.

REGIONAL AVIATION SYSTEM

The 2001 RTP recommends a decentralized regional aviation system. The Plan proposes development of aviation facilities where unmet demand is greatest and also where population growth is expected to be significant in order to meet demand and reduce impacts. The Plan also proposes various strategies to promote use of under-utilized facilities, including high-speed rail linkages between airports and market incentives.

In the adopted scenario (see Figure 1.5), LAX is constrained to its existing physical capacity, estimated at 78 MAP. Burbank (BUR), John Wayne (SNA) and Long Beach (LGB) are constrained to their legal or existing physical capacities. Substantial growth is forecast at El Toro (ELT) and Ontario (ONT). Market incentives have been included to disperse demand to outlying airports to the extent possible. These outlying airports include Palmdale (PMD), San Bernardino International Airport (SBD), Southern California Logistics Airport (SCI) and March Global Port (MAR).

TRANSPORTATION DEMAND MANAGEMENT

This Plan continues to place considerable emphasis on Transportation Demand Management (TDM) strategies and actions such as ridesharing, telecommuting and work at home, continued outreach and education related to available options and traveler information systems. Figure 1.6 below shows the regional ridesharing trends from SCAG's State of the Commute Survey, and much like public transportation, TDM strategies offer viable options to automobile travel and are an important element of the RTP. Specific recommendations included in this Plan are to support the maintenance of the existing carpool market share and an increase in vanpooling, continue increasing public awareness of travel options, support the development of park and ride facilities and encourage telecommunicating in lieu of travel.

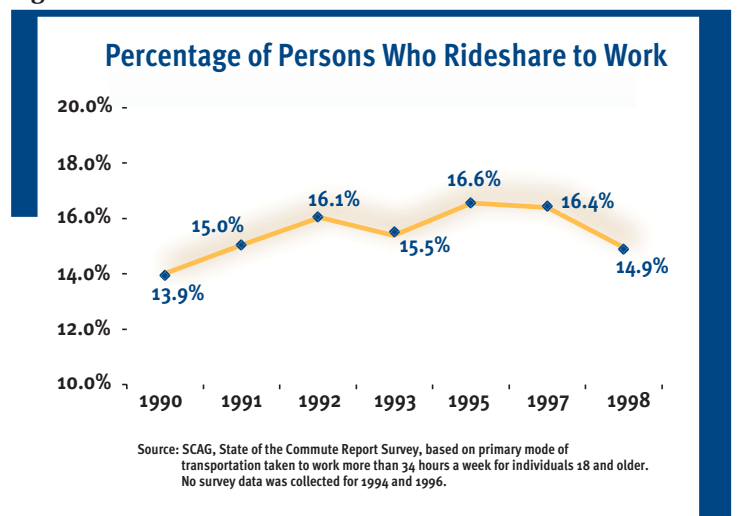
To further augment TDM strategies, it is proposed that we begin the long-term initiatives to develop accessibility to emerging activity centers by reinforcing land use and transportation connections. This could include developing more flexible transportation services that make these centers more accessible by other modes, such as scheduled vanpool and jitney services that utilize up-to-date information technology. A total of \$1.2 billion of funding is recommended for TDM, ITS, park and ride and vanpooling activities.

Figure 1.5

Aviation System (million annual passengers) (2025)	
Burbank	9*
El Toro	30
John Wayne	8
Los Angeles Int'l	78
Long Beach	3
March Global Port	2
Ontario	30
Palm Springs	3
Palmdale	2
Point Mugu	n/a
San Bernardino Int'l	2
Southern California Logistics	1
Market Incentives	yes
High-Speed Rail	yes
Total Million Annual Passengers:	167

* Airport legally or physically constrained

Figure 1.6



NON-MOTORIZED TRANSPORTATION

This Plan proposes significant investment in non-motorized transportation such as bikeways and pedestrian facilities. Specifically, the Plan proposes to invest over \$700 million in improving the non-motorized transportation network.

LAND-USE TRANSPORTATION

SCAG and other policy leaders are placing a strong emphasis on new land-use and transportation policies that will accommodate future growth while addressing transportation demand and air quality concerns. The 2001 RTP expands on the 1998 RTP's Livable Communities Program by establishing the Growth Visioning Subcommittee to develop a process that assists local, subregional and regional officials in developing additional strategies to accommodate growth.

The 2001 RTP includes a number of policies that support smart growth choices. These policies include transit-oriented development, mixed-use centers, non-motorized transportation facilities, transit improvements and private investment through Location Efficient Mortgages (LEMs).

PLAN PERFORMANCE

Table 1.6

MOBILITY AND ACCESSIBILITY PERFORMANCE RESULTS	
Performance Indicators	Improvement from 2025 Baseline to 2025 Plan
MOBILITY – Ease of movement of people, goods and services	
Work Trip Travel Time	7%
PM Peak Highway Speed:	
Freeway	15%
Non-Freeway	8%
Percent of PM Peak Travel in Delay:	
Freeway	14%
Non-Freeway	19%
ACCESSIBILITY – Ease of reaching opportunities as measured by the percent of commuters who can get to work within door-to-door 45 minutes by all modes	
Increased Work Trips within:	
45 minutes by Auto	3%
45 minutes by Transit	48%

Tables 1.6, 1.7 and 1.8 show the Plan's performance when measured against the Performance Indicators discussed earlier comparative to Baseline investment. In summary, the tables show that the 2001 RTP will improve mobility and accessibility significantly over the Baseline. For example, work trip travel time would improve by 7 percent, freeway speed during PM peak period would improve by 15 percent and transit accessibility would improve by 48 percent. Given the enormous growth the Region will experience during the Plan time period and the new travel demands that growth will place on the metropolitan transportation system, the Plan's performance is acceptable. Chapter VII discusses Plan performance in detail.

The overall investment program contained in the 2001 RTP represents a balanced multi-modal group of programs and projects that address the transportation needs projected for the future. In addition, the Plan is responsive to the need to protect and improve the environment, improving air quality, and to ensure that all of the Region's residents

Table 1.7

RELIABILITY AND SAFETY PERFORMANCE RESULTS	
Performance Indicators	Plan Improvement Over Baseline
RELIABILITY – Reasonably dependable levels of service as measured by the percent of on-time arrivals	
Transit	3%
Highway	11%
SAFETY – Transit with minimal risk of accident or injury as measured by reduced accidents	
Fatality Per Million Passenger Miles	0%
Injury Accidents	0%

and businesses have access to a transportation system that serves their respective needs. The Plan presents a realistic funding strategy that is based upon detailed analysis and consideration of many different options for raising needed revenues. Finally, the economic vitality of this Region is dependent on a transportation system that works; the recommended investments in this Plan will support the strong economic base that the Region enjoys today and relies upon for a secure future.

Reaching consensus on the difficult transportation issues this Region faces in a diverse and rapidly growing metropolitan area is a tough challenge. The 2001 RTP has broad-based support from the many constituent groups and stakeholders involved in its development. The Plan provides the framework for future transportation investment yet provides the flexibility needed to accommodate the dynamic environment in this vast metropolitan area.

Table 1.8

2001 RTP COST-BENEFIT ANALYSIS				
Project	Costs (In Billions)	Benefits (In Billions)	Net Benefits (In Billions)	Value of One Dollar Invested
2001 RTP				
(Present Value)	\$ 10.4	\$ 24.7	\$ 14.3	\$ 2.38
2001 RTP				
(Constant Dollar)	\$ 24.3	\$ 108.0	\$ 83.7	\$ 4.44



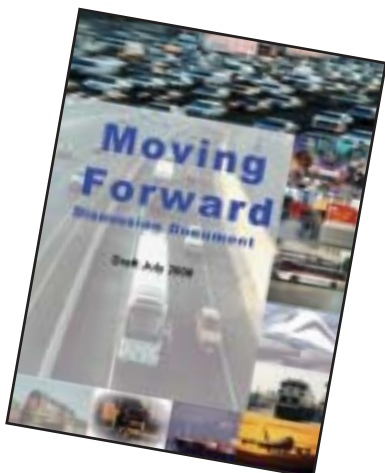
II.

introduction

PURPOSE



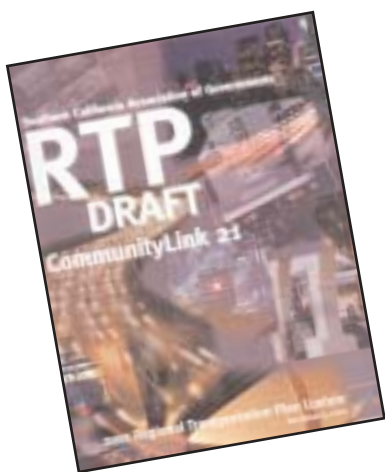
The purpose of the 2001 RTP is to present a transportation plan that enjoys regional consensus through its flexibility and recognition of the unique nature of the Region, yet also meets federal and state requirements. In federally designated non-attainment and maintenance areas, the U.S. Department of Transportation, Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) require that the Region submit a regional transportation plan (RTP) every three years. The RTP must meet a number of requirements, one of which is that it cover a period of at least 20 years into the future. The 2001 RTP covers the period 2001-2025. Transportation investments in the SCAG Region, which receive federal transportation funds, must be consistent with the RTP and must be included in the Regional Transportation Improvement Program (RTIP) when ready for funding. The RTIP complements the corresponding years of the RTP and must be updated every two years for funding. SCAG's RTIP is a six-year program.



Concurrent with adoption of the 1998 RTP, the Regional Council directed SCAG staff to work to develop consensus on a number of key issues in the next RTP update. Staff initiated a process immediately following the adoption of the 1998 RTP to carry out this directive. The key issues were:

- growth forecasts
- finance
- the future of airports in the Region

These issues are addressed in detail in this document, along with other issues associated with the investments recommended in the 2001 RTP.



The Draft 2001 RTP Update was released by the Regional Council on December 14, 2000 and made available for public review and comment over the next 60 days, during which time the document continued to be refined. An extensive public outreach on the 2001 RTP was conducted throughout the Region to ensure broad public participation. It is important to note that the planning process is continuous and the RTP is not a static document. Rather, it provides a framework for investments and must be updated again no later than 3 years from the federal approval of the conformity determination.

In July 2000, SCAG released *Moving Forward*, a discussion document intended to elicit input from stakeholders on the development of the 2001 RTP. Input from several stakeholder groups was received and SCAG made every effort to consider the suggestions, ideas and concerns of those stakeholders in the 2001 RTP.

ORGANIZATION OF THIS DOCUMENT

TRANSPORTATION PLANNING FRAMEWORK

We begin by discussing the transportation planning framework in the Region, including regional goals, planning principles and objectives. Next, we discuss the performance measures used in the SCAG Region, which were originally used in the development of the 1998 RTP. The performance measures have been refined by the Task Force efforts and have provided the underpinning for development of the 2001 RTP. The transportation planning process is then discussed, including state and federal requirements, the bottom-up process used in the development of this draft and SCAG's public outreach and environmental justice programs. The Technical Appendix to this document includes additional information on public outreach opportunities and outreach efforts related to SCAG's environmental justice procedures.

PLANNING ASSUMPTIONS

This section of the 2001 RTP discusses the regional setting in 2000 and SCAG forecasts for 2025. Five key areas are discussed:

- ▶ population
- ▶ employment and the economy
- ▶ household growth and housing
- ▶ transportation demand, Baseline investments and the role of transit
- ▶ transportation and air quality conformity

The purpose of this section is to provide the context for deciding upon transportation investments in the Region based upon SCAG's demographic and economic forecasts for the future.

STRATEGIC INVESTMENTS TO ACHIEVE REGIONAL GOALS

This section of the 2001 RTP provides an overview of the setting today for each modal alternative, issues associated with managing future demand for that mode and recommendations and alternative investments in that transportation mode. Included in this section are highways/major arterials/local streets; intelligent transportation systems; public transit; Goods Movement, including ports and rail freight; aviation and ground access to airports; transportation demand management and non-motorized transportation modes. This section provides the core of the 2001 RTP and is derived from the application of performance measures to proposed investments. A detailed project listing of recommended investments and alternatives is included in the Technical Appendix, which also contains the detailed assessments of investments based upon these performance measures.

FINANCIAL PLAN

This section of the document describes the financial capacity of the Region to fund investments that are included in the 2001 RTP and was guided by the Transportation and Communications Committee's adoption of principles and funding assumptions in August 2000. In addition, this section includes strategies for ensuring the maintenance of historical purchasing power of transportation funds needed to make the 2001 RTP a financially constrained plan as well as to meet federal requirements in this regard. A breakdown of financial data at the county level, as well as supporting data for the technical analysis, is presented in the Technical Appendix.

PLAN PERFORMANCE

This section includes performance analysis of the proposed Plan based on regional performance goals such as mobility, accessibility, reliability, safety and cost-effectiveness. This section also includes current information on air quality in the Region, our commitments to reduce mobile sources of emissions and a review of the transportation measures included in the 2001 RTP and their air quality impacts. An environmental justice analysis is also presented in this section.

FUTURE LINK

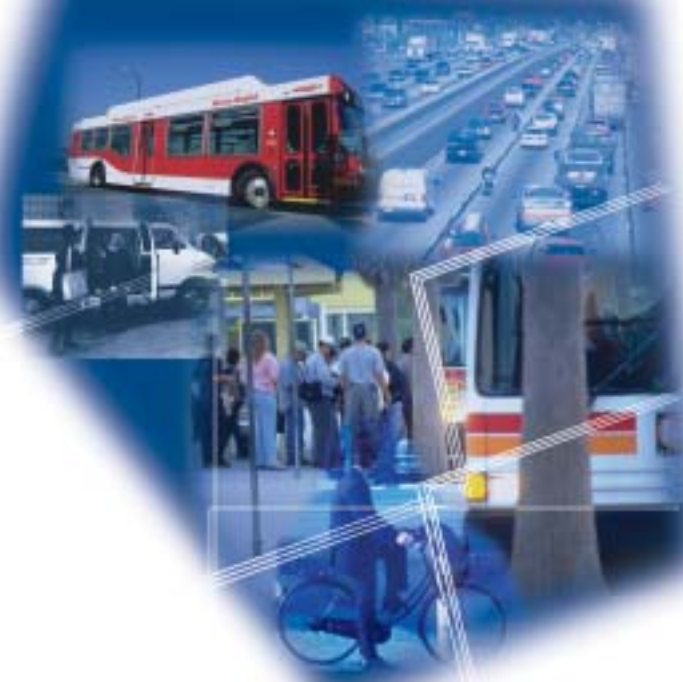
This section identifies transportation corridors that should be preserved to expand or enhance transportation for future generations. Ideally, the long-range corridors will encourage planners and policy-makers to start preparing strategies for preserving corridors now.

MONITORING OUR PROGRESS

This section describes our regional plan-monitoring programs and tools.

WHERE DO WE GO FROM HERE?

This section describes future steps towards coordinating and implementing the Regional Transportation Plan.





III.

transportation
planning framework



REGIONAL GOALS

Building on the considerable effort that went into developing the 1998 RTP, the following goals have been updated to emphasize subregional and market-based approaches to improved mobility:

1. Improve transportation mobility for all people and enhance the movement of goods within the subregions and the Region.
2. Ensure that transportation investments are cost-effective, protect the environment (including improving air quality), promote energy efficiency and enhance the quality of life.
3. Serve the public's transportation needs in safe, reliable and economical ways that also meet the individual needs of those who depend on public transit, such as the elderly, handicapped and disadvantaged.
4. Develop regional transportation solutions that complement the subregional transportation systems and the land-use plans of communities within the subregions.
5. Promote transportation strategies that are innovative and market-based, encourage new technologies and support the Southern California economy.
6. Encourage land-use and growth patterns that enhance the livability of our communities and maximize the productivity of transportation investments.

TRANSPORTATION PLANNING POLICIES

The following policies were adopted in the 1998 RTP to help guide regional transportation investments and continue to reflect the transportation policies of the Region:

Policy #1

Transportation investments shall be based on SCAG's adopted Regional Performance Indicators.

Policy #2

Transportation investments shall mitigate environmental impacts to an acceptable level.

Policy #3

Major Investment Studies or other major planning studies for regional transportation facilities shall include consideration of freight movement.

Policy #4

Transportation Control Measures included in the approved State Implementation Plan (SIP) shall be a priority.

Policy #5

The Regional Transportation Improvement Program (RTIP) shall be developed using the RTP as guidance, and approval shall be based on its consistency with the RTP.

Policy #6

Implementing freight improvements, advanced transportation technology, airport and seaport ground access and traveler information services, shall be RTP priorities.

Policy #7

Projects proposed for the RTIP that do not indicate a reasonable phasing of construction between segments will not be approved.

Policy #8

Commercial airport capacity shall be expanded to serve passenger and freight needs with environmental and ground access impacts being mitigated to an acceptable level.

Policy #9

All existing and new public transit services, facilities and/or systems shall be fully accessible to persons with disabilities as required by applicable sections of the 1990 Americans with Disabilities Act.

Policy #10

All existing and new public transit services shall be provided in a manner consistent with Title VI of the 1964 Civil Rights Act and Executive Order 12898 on Environmental Justice, including the prohibition of intentional discrimination and adverse disparate impact with regard to race, ethnicity or national origin.

Policy #11

All existing and new public transit services, facilities and/or systems shall evaluate the potential for private sector participation through the use of competitive procurement and feasible institutional arrangements.

Policy #12

New freeway facilities shall be open for Goods Movement except where safety would prohibit this.

Policy #13

Tolled highway facilities shall be designed, operated and priced to encourage the use of public and private transit, carpools, vanpools and other HOVs. Average vehicle occupancy on the toll facility shall be comparable to similar facilities without tolls.

Policy #14

Pricing policies may be applied by appropriate agencies to maintain acceptable levels of service of facilities.

Policy #15

Arterial HOV facilities to support transit and rideshare will be supported and encouraged.

Policy #16

Maintaining and operating the existing transportation system will be a priority over expanding capacity.

Policy #17

Alternatives to highway expansion must be evaluated before giving regional approval to expand single-occupancy lanes.

Policy #18

Each county should provide environmentally acceptable airport capacity within its own market area to meet local and domestic air passenger demand.

Policy #19

Airports shall be expanded and added to the system to reinforce regional growth patterns and to make regional communities more livable.

Policy #20

International facilities should be developed at other commercial airports in the SCAG Region in addition to LAX.

A matrix depicting the relationship between goals, policies and actions is presented in the Technical Appendix.

PERFORMANCE MEASURES

PERFORMANCE-BASED PLANNING

The 1998 Regional Transportation Plan, the State RTP Guidelines and the Transportation Efficiency Act for the 21st Century (TEA-21) call for the use of performance-based measures that will help decision-makers better analyze transportation options.



To meet the challenges of performance-based planning, SCAG developed Performance Indicators that consider transportation from a “user’s perspective.” Every day, millions of users consider rush hour congestion, speeds, reliability of service, parking costs and other factors before making trip choices. SCAG’s Performance Indicators are based on these very same “common sense” criteria.

SCAG’S PERFORMANCE INDICATORS

SCAG’s Performance Indicators were developed with the help of the public, stakeholders, subregions, County Transportation Commissions/subregions and several SCAG committees, including a Peer Review Committee and SCAG’s Transportation and Communications Committee (TCC), which approved the Performance Indicators at its regular meeting in September 1995. The Performance Indicators focus on the ease of movement of people and goods.

At the request of SCAG’s Transportation and Communications Committee, and on the basis of early subregional input, the 1998 RTP also provided analysis on transportation equity issues and considered the impact of transportation policies that treat the automobile as one of many travel options available as opposed to the only option. Transportation equity discussions have been expanded and elaborated in the 2001 RTP as part of the environmental justice analysis. For further discussion on SCAG’s Performance Indicators, please refer to the Technical Appendix.

Table 3.1

PERFORMANCE OBJECTIVES		
Objective	Performance Indicators	Target
Mobility Transportation System should meet the public need for improved access and for safe, comfortable, convenient, fast and economical movement of people and goods.	Avg. work trip travel time in minutes PM peak freeway travel speed PM peak non-freeway travel speed Percent of PM pk travel in delay (fwy) Percent of PM pk travel in delay (non-fwy)	25 minutes (auto) 45 minutes (transit)
Accessibility Transportation system should ensure the ease with which opportunities are reached. Transportation and land-use measures should be employed to ensure minimal time and cost.	Work opportunities within 45 minutes of door-to-door travel time (mode neutral) Average transit access time	
Environment Transportation system should sustain the development and preservation of the existing system and the environment (all trips).	CO ROG NOx PM10 PM2.5	Meet the applicable SIP Emission Budget and the transportation conformity requirements
Reliability Transportation system should have reasonable and dependable levels of service by mode (all trips).	Transit Highway	63% on-time arrivals 76% on-time arrivals
Safety Transportation system should provide minimal accident, death and injury (all trips).	Fatalities per million passenger miles Injury accidents	0 0
Livable Communities Growth Visioning Subcommittee has been initiated to further articulate and evaluate growth, land-use and livable communities strategies for inclusion in the next RTP update.		
Equity/Environmental Justice The benefit of transportation investments should be equitably distributed among all ethnic, age and income groups (all trips).	By income groups share of net benefits	Equitable distribution of benefits among all income quintiles
Geographic Equity Work is continuing in further refining the issue and evaluation methodology. It will be considered for inclusion in the next RTP Update.	Expenditures vs. benefits	Equitable distribution of benefits
Cost-Effectiveness Maximize return on transportation investment (all trips) - Air Quality - Mobility - Accessibility - Safety	Return on total investment	Optimize return on transportation investments
Transportation Sustainability Work is continuing in further refining the issue and evaluation methodology. It will be considered for inclusion in the next RTP Update.		

TRANSPORTATION PLANNING PROCESS

OVERVIEW OF FEDERAL REQUIREMENTS

Under the TEA-21, the U.S. Department of Transportation (USDOT) requires that the Metropolitan Planning Organizations (MPOs) prepare long-range transportation plans. In federally designated non-attainment and maintenance areas, these plans must be updated every three years. SCAG adopted the 1998 RTP in April 1998. The 2001 RTP is an update to the 98 RTP and it replaces the 98 RTP in its entirety.

The federal requirements for metropolitan transportation plans include the following key provisions:

- ▶ Plans must be developed through an open and inclusive process that ensures public input and seeks out and considers the needs of those traditionally under served by existing transportation systems
- ▶ Plans must be for a period not less than 20 years into the future
- ▶ Plans must reflect the most recent assumptions for population, travel, land use, congestion, employment and economic activity
- ▶ Plans must be financially constrained and revenue assumptions must be reasonable in that they can be expected to be available during the time frame of the Plan
- ▶ Plans must conform to the applicable State Implementation Plans (SIPs)
- ▶ Plans must consider seven planning factors and strategies, in the local context, as follows:
 - (1) Support the economic vitality of the United States, the individual States and metropolitan areas, especially by enabling global competitiveness, productivity and efficiency;
 - (2) Increase the safety and security of the transportation system for motorized and non-motorized users;
 - (3) Increase the accessibility and mobility options available to people and for freight;
 - (4) Protect and enhance the environment, promote energy conservation and improve quality of life;
 - (5) Enhance the integration and connectivity of the transportation system, across and between modes throughout the state, for people and freight;
 - (6) Promote efficient system management and operation; and
 - (7) Emphasize the preservation of the existing transportation system.

OVERVIEW OF STATE REQUIREMENTS

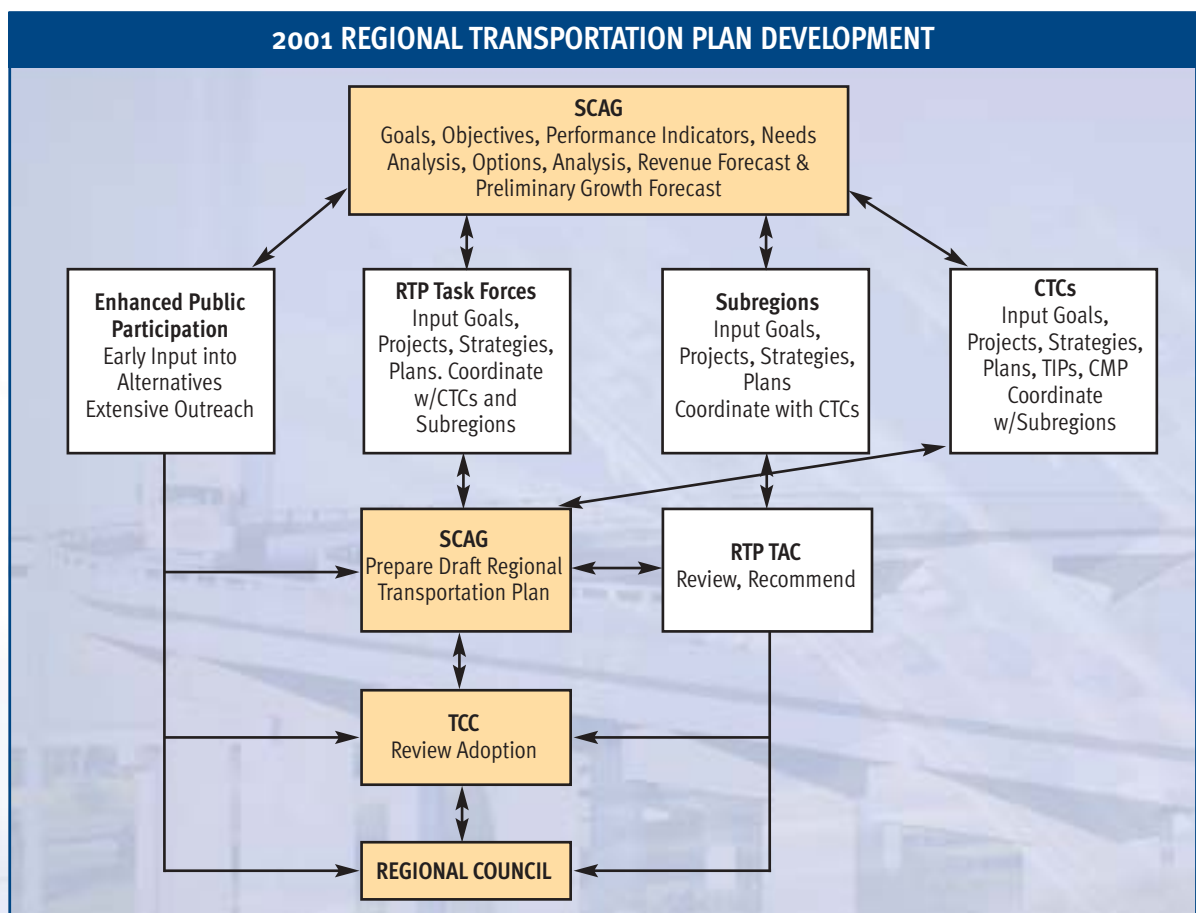
The state, whose requirements largely mirror the federal requirements, has adopted extensive RTP guidelines. Key additional state requirements are briefly discussed here. Transportation plans must comply with the California Environmental Quality Act (CEQA) and the 2001 RTP will meet those requirements. In addition, the first four years of plans must be consistent with the four-year State Transportation Improvement Program (STIP) as incorporated into the SCAG RTIP. Further, the state guidelines call for program-level performance measures that include objective criteria that reflect the goals and objectives of the RTP. The State guidelines also call for three specific elements of regional plans: a policy element, an action element and a financial element.

SCAG'S PLAN UPDATE PROCESS

The 2001 RTP is intended to provide strategic direction for transportation investments over the 2001-2025 time period. The next RTP must be updated no later than three years from the date of the federal conformity determination of the 2001 RTP. The RTP is a critical document to assure federal and state transportation funding.

To address the challenges faced by the Region as well as update the RTP on the schedule required by the USDOT, SCAG initiated a bottom-up collaborative planning process that included 12 Task Forces and numerous subcommittees. These Task Force members included hundreds of local and regional officials, representatives of federal and state agencies and representatives of community groups and environmental organizations (see Technical Appendix for listing of Task Force, subcommittee members and meeting dates). A listing of the Task Forces and key committees is presented here. Figure 3.1 depicts the 2001 RTP development process.

Figure 3.1



Regional Plan Task Forces and Key Subcommittees

RTP Technical Advisory Committee (TAC)

Growth/Forecast

Long-Range Transportation Finance

Aviation

Transportation Corridors

High-Speed Rail

Regional Transit

Four Corners

Truck Lanes

Goods Movement

Modeling

Subregional Coordinators Group

TRANSPORTATION PLANNING IN THE SCAG REGION

Numerous agencies are charged with the responsibility for transportation planning and investment decisions within the SCAG Region. This section of the 2001 RTP summarizes the planning environment and discusses how SCAG integrates the planning activities of each of the counties in the Region to ensure a balanced, multi-modal plan that meets regional as well as county-specific goals.

Each of the six counties in the SCAG Region has a Transportation Commission or Authority, with the exception of Imperial County, where Imperial Valley Association of Governments (IVAG) serves as the countywide trans-

portation agency. These agencies are charged with county-wide transportation planning activities, allocation of locally generated transportation revenues and, in some cases, operation of transit services. In addition, there are 14 subregions within the SCAG Region. These are groups of cities and communities geographically clustered (sometimes comprising an entire county), which work together to identify, prioritize and seek transportation funding for needed investments in their respective areas. Finally, the SCAG Region comprises all or part of seven different air quality non-attainment or maintenance areas in five air basins and federal law requires that transportation and air quality planning are coordinated in these non-attainment and maintenance areas.

PUBLIC OUTREACH AND PUBLIC INVOLVEMENT

As a metropolitan planning organization (MPO), SCAG is required to implement a public involvement process to provide complete information, timely public notice and full-public access to key decisions and to support early and continuing public involvement in developing its regional plans. This is in accordance with Section 450.316(b) of the

Stakeholders in the Development of the 2001 RTP

Southern California Association of Governments

County Transportation Commissions/ Transportation Sales Tax Commissions

Los Angeles

Orange

San Bernardino

Riverside

Ventura

Imperial

Subregional Council of Governments

Arroyo Verdugo Cities

Coachella Valley Association of Governments

Gateway Cities COG

Imperial Valley Association of Governments

Las Virgenes-Malibu-Conejo COG

City of Los Angeles

North Los Angeles County

Orange County COG

San Bernardino Associated Governments

San Gabriel Valley COG

South Bay Cities COG

Ventura County COG

Western Riverside County COG

Westside Cities COG

Local and County Governments

Other Owners, Operators and Implementing Agencies

Caltrans District Offices

Airport Authorities

Port Authorities

Transit/Rail Operators

Resource/Regulating Agencies

USDOT (FHWA, FTA, FAA, FRA)

US EPA

CA DOT

CA Air Resources Board

CA EPA

Air Districts

**Other private, non-profit organizations,
interest groups and Tribal Communities**

metropolitan planning regulations. SCAG formally adopted a Public Participation Program in September 1993. Further, Title VI of the Civil Rights Act of 1964 and associated regulations and policies, including President Clinton's 1994 Executive Order 12898 on Environmental Justice, seek to assure minority and low-income populations are involved in the regional planning process.

In light of this context, SCAG formalized a Public Involvement Program in 1999 for the 2001 RTP. For the RTP, a multi-pronged approach established a specific public outreach and participation program. This program included the following outreach methods:

- ▶ Agreements with SCAG subregions to implement their own subregional outreach programs
- ▶ Presentations to established organizations on the RTP throughout the Region
- ▶ Specific public workshops on the RTP throughout the Region
- ▶ Electronic Town Halls to focus upon specific topics of the RTP
- ▶ Direct outreach to the minority and low-income populations
- ▶ A Transportation Summit (focusing on the regional transportation situation)
- ▶ Business roundtable forums with representatives of the business community
- ▶ Development of written and visual material to communicate the status and content of the RTP, including newsletters, fact sheets and PowerPoint presentations
- ▶ A public comment form used throughout the outreach program (in person at public meetings and online)
- ▶ Creation and further development of community contact databases throughout the Region
- ▶ Direct mail and electronic mail to community contacts regarding the RTP
- ▶ SCAG's website, featuring the Draft 2001 RTP, including public meeting notices and the latest written information on the RTP (bilingual in English and Spanish)
- ▶ Advertising support for the RTP Draft and Final Program Environmental Impact Report throughout the Region

The Public Outreach and Participation Program in support of this RTP was implemented throughout the Region. The main objective of this communication effort was to get the word out about the RTP and to receive input back from the public. As the RTP itself was being developed, debated and updated at SCAG by its elected officials, technical advisors and staff, the Public Outreach and Participation Program kept pace with its content and decision points. This included the policy discussions from the RTP Task Forces, the Transportation and Communications Committee and the SCAG Regional Council. Each SCAG meeting was publicly noticed and opportunities for comments were provided.



With the participation of most SCAG subregions and a central communications consultant team, SCAG was able to complete a comprehensive outreach program. In summary, this included the following:

- ▶ 78 Public Workshops and/or Organizational Presentations
- ▶ 38 Environmental Justice Community Dialogues
- ▶ Two (2) Electronic Town Halls focusing on transportation finance and Goods Movement, respectively
- ▶ Three (3) Business Roundtable Forums
- ▶ One (1) Transportation Summit at the University of Southern California
- ▶ One (1) E-Commerce Summit
- ▶ A multitude of PowerPoint presentations on the RTP tailored specifically to subregions and updated as the RTP progressed
- ▶ Eight (8) fact sheets on individual topics of the RTP, updated as the RTP progressed
- ▶ More than 1,500 public comments on the RTP
- ▶ More than 585,000 “hits” on the public website, including 30,308 unique users


All public input efforts and results are documented in the RTP Technical Appendix. Specific public comments on the RTP were recorded and considered by SCAG staff in the development of this 2001 RTP.

ENVIRONMENTAL JUSTICE

It is SCAG's policy to integrate environmental justice into its transportation planning process. This is done, in part, to comply with Title VI of the Civil Rights Act of 1964 and associated regulations and policies, including President Clinton's 1994 Executive Order 12898 on Environmental Justice. In general, these laws and orders prohibit discrimination on the basis of race, income, age or disability.

In the transportation planning context, SCAG seeks to assure that Plan benefits and burdens are not inequitably distributed within the Region. If inequities are found, they should be mitigated, though they can be justified if there is no less-discriminatory alternative or if any alternative would pose an extraordinary financial cost.

SCAG has accomplished this goal through two main efforts: public outreach and analysis. Our public outreach efforts are intended to assure that all members of the public have the opportunity to participate meaningfully in the planning process. These efforts include targeted outreach to minority and low-income communities throughout the Region to assure that their concerns are heard and addressed.



In the transportation planning context, SCAG seeks to assure that Plan benefits and burdens are not inequitably distributed.

In its 1998 RTP, SCAG conducted an extensive analysis designed to test the equity of its Plan for minority and low-income residents of the Region. The analysis for the 1998 RTP found that, while overall Plan expenditures would benefit high-income groups more than low-income groups, the Plan also contained transit elements that would improve access to opportunity for low-income and minority residents of the Region.

Since the 1998 RTP was released, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have renewed their commitment to assuring environmental justice in the programs they fund. In 2000, the agencies issued proposed revised planning regulations,³ which would link MPO certifications to environmental justice activities. SCAG has responded to the FHWA and FTA expectations with the application of detailed analytical approaches and extensive public outreach efforts, as described below.

Public Outreach on Environmental Justice Issues

As referenced above, federal planning regulations and policies require that a wide spectrum of stakeholders have the opportunity to participate meaningfully in the planning process. Toward this end, SCAG placed an emphasis on reaching out to the minority and low-income communities and the leadership that represents these communities.

A series of Community Dialogue meetings (41) was held throughout the Region. For these dialogues, an overview of SCAG and its purpose was presented prior to delving into the content and importance of the RTP. Appropriate language interpretation services were provided for these meetings as needed.

Further, a series of four (4) of meetings was held with a set of leadership groups that represent the minority and low-income communities, including those focusing upon environmental issues. SCAG elected officials lead these meetings. With this audience, SCAG reviewed its environmental justice policy language as it was being developed. It also reviewed its RTP environmental justice impact analysis at a set of meetings with these groups. All input was documented and considered in the development of the 2001 RTP.

Analysis Methods

SCAG's environmental justice analysis has two major components: 1) focus on the distribution of environmental impacts and 2) calculation of net benefits of the Plan, including accessibility and mobility. The distribution analysis attempts to identify environmental impacts of the RTP that have the potential to affect different ethnic or income groups differently. The areas addressed by SCAG's program include noise, traffic congestion, air quality and safety (specifically traffic safety). The accessibility analysis examines the Plan's overall effects on the ability to reach jobs and essential services for all income and ethnic groups in the Region.

In accordance with proposed federal planning regulations and environmental justice guidance, SCAG bases these analyses on demographic data—specifically, the projected locations of low-income and minority populations in 2025. Where possible, impacts on the elderly and disabled are also included in the analysis.



IV.

planning assumptions



REGIONAL SETTING

The SCAG Region is vast, encompassing 38,000 square miles and equal in size to the state of Ohio. Covering six counties and 184 cities, this is by far the largest and most populous metropolitan planning region in the nation. Moreover, the SCAG Region includes nearly half of the entire population of the State of California. The Region is loosely divided into 14 subregions and is one of the largest concentrations of employment, income, business, industry and finance in the world. The Gross Regional Product (GRP) for the Region would rank Southern California as the 12th largest economy in the world, while the state as a whole has an equivalent of the 6th highest Gross Domestic Product (GDP) in the world. An understanding of a number of factors relating to the regional setting are central to the development and finalization of the 2001 RTP. These factors include:

- ▀ Population, employment and household growth
- ▀ Transportation demand, Baseline investments and the role of transit
- ▀ Transportation and air quality conformity

POPULATION, EMPLOYMENT AND HOUSEHOLD GROWTH: BASELINE CASE

Population estimates for 2020 predict fewer people in the SCAG Region than estimated in the 1998 RTP (21.3 million vs. an original estimate of 22.3 million). However, by 2025 population in the SCAG Region is projected to grow to 22.6 million people. The Region's forecasted number of jobs in 2025 will be just under 10.0 million, which is an approximate 43 percent increase in jobs from 1997, yet about 600,000 fewer jobs than forecast for 2020 in the 1998 RTP. Incorporating the results from a two-year local input and review process, Table 4.1 shows the 2001 RTP Baseline growth forecast of population, employment and household for the Region.

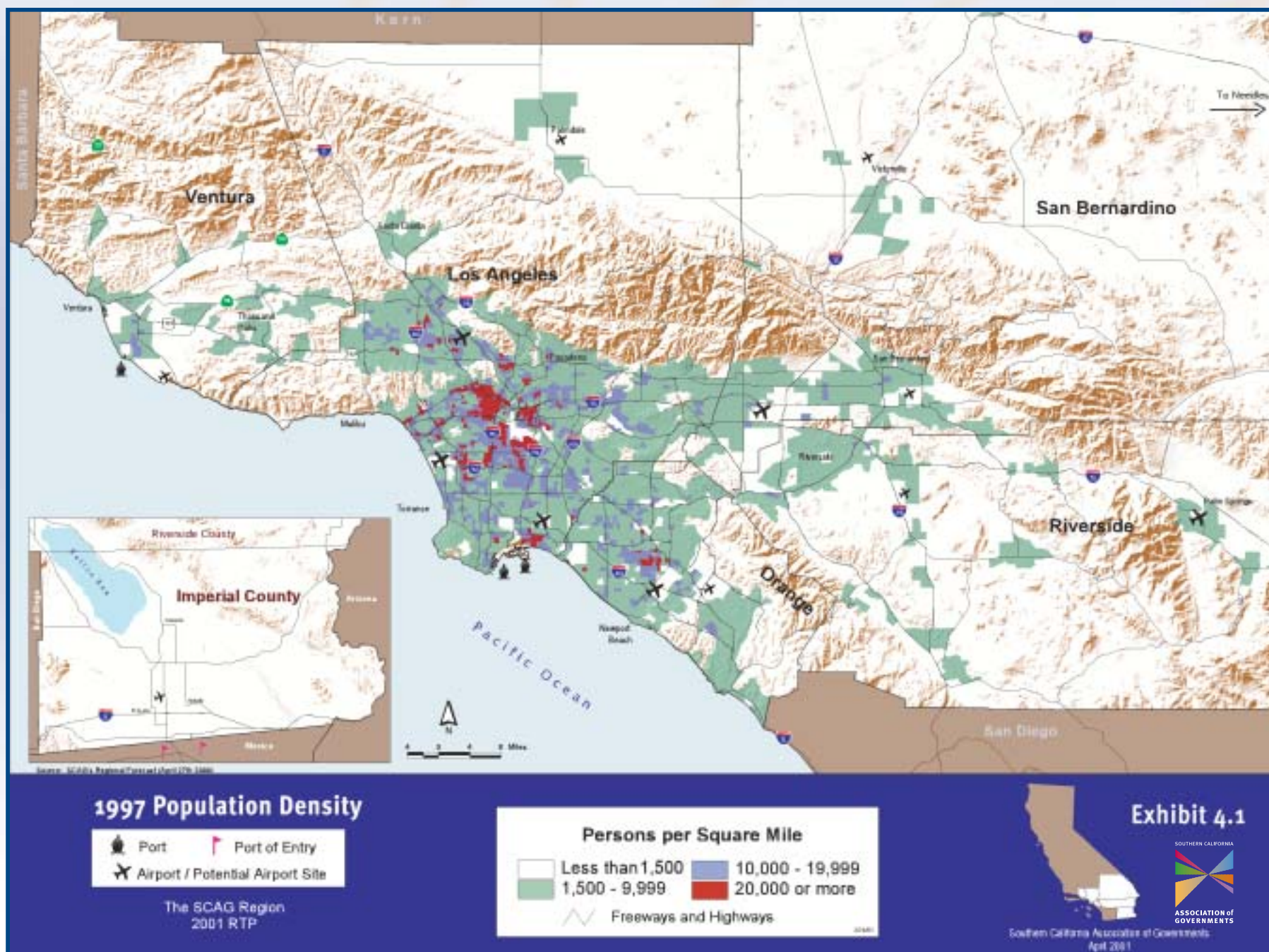
The composition of the Region's population is also changing. Demographic projections show that the SCAG Region's population growth will come almost exclusively from two groups—Hispanics and Asian/Pacific Islanders. In fact, Hispanics' share of the regional total population is projected to surpass that of non-Hispanic whites by the year 2003, and will reach 51 percent by 2025. Another significant trend is the “graying” of the population, as the first members of the Baby Boom generation are approaching their mid-50s. In the SCAG Region, the share of elderly persons—aged 65 and above—will rise to 15.4 percent in 2025, from 9.9 percent in 1997, assuming current residents retire within this Region.

Table 4.1

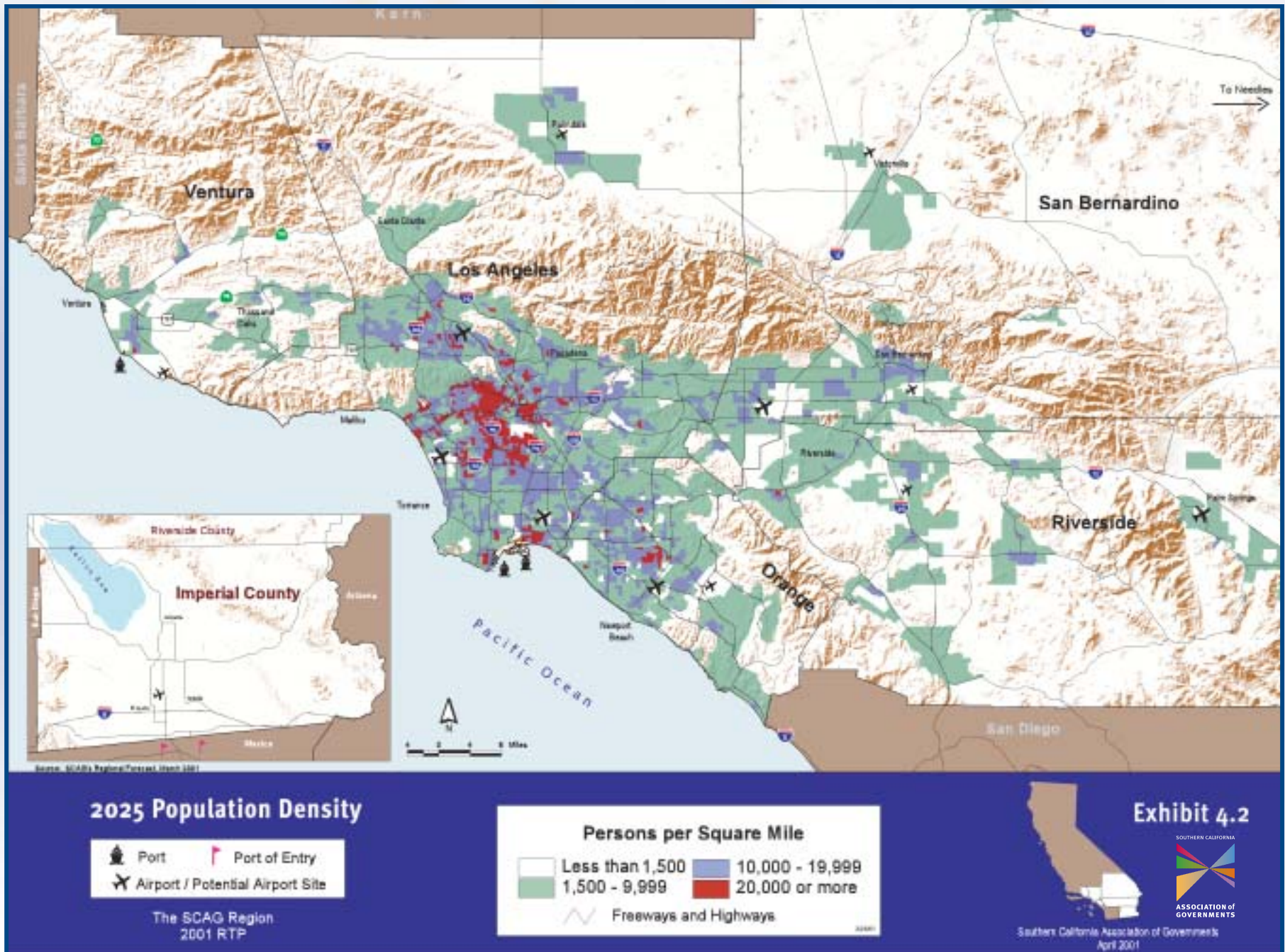
2001 RTP FINAL BASELINE POPULATION, EMPLOYMENT & HOUSEHOLD FORECAST (IN THOUSANDS)								
	1997	2000	2005	2010	2015	2020	2025	% Change 1997 to 2025
Population	16,137	16,845	17,988	19,066	20,069	21,316	22,644	40%
Employment	6,971	7,416	8,107	8,779	9,200	9,572	9,952	43%
Households	5,201	5,402	5,674	6,081	6,468	6,912	7,418	43%

Source: Final 2001 RTP Baseline growth forecast, reflects input and review from all local jurisdictions (city and subregion)

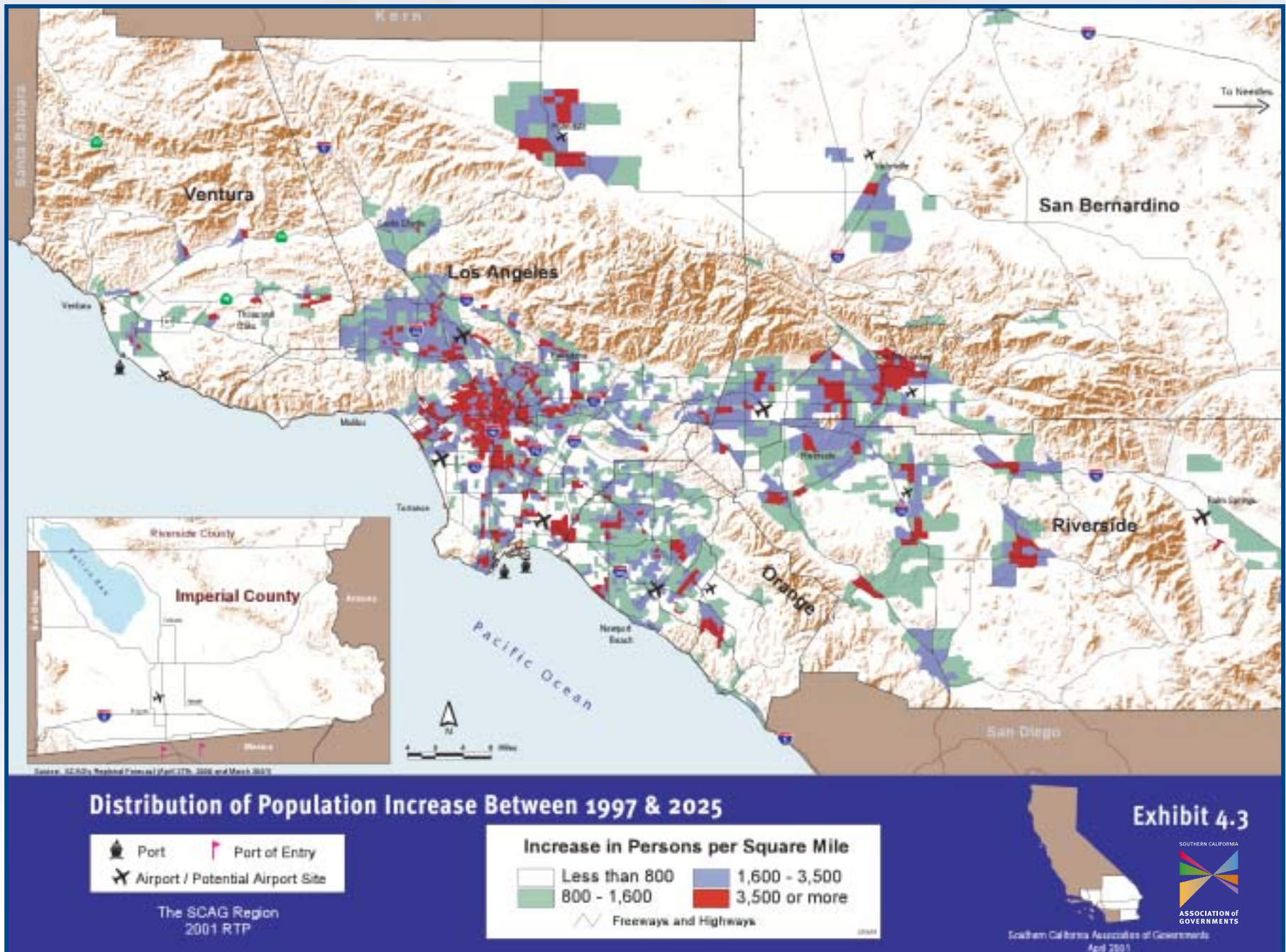
1997 Population Density



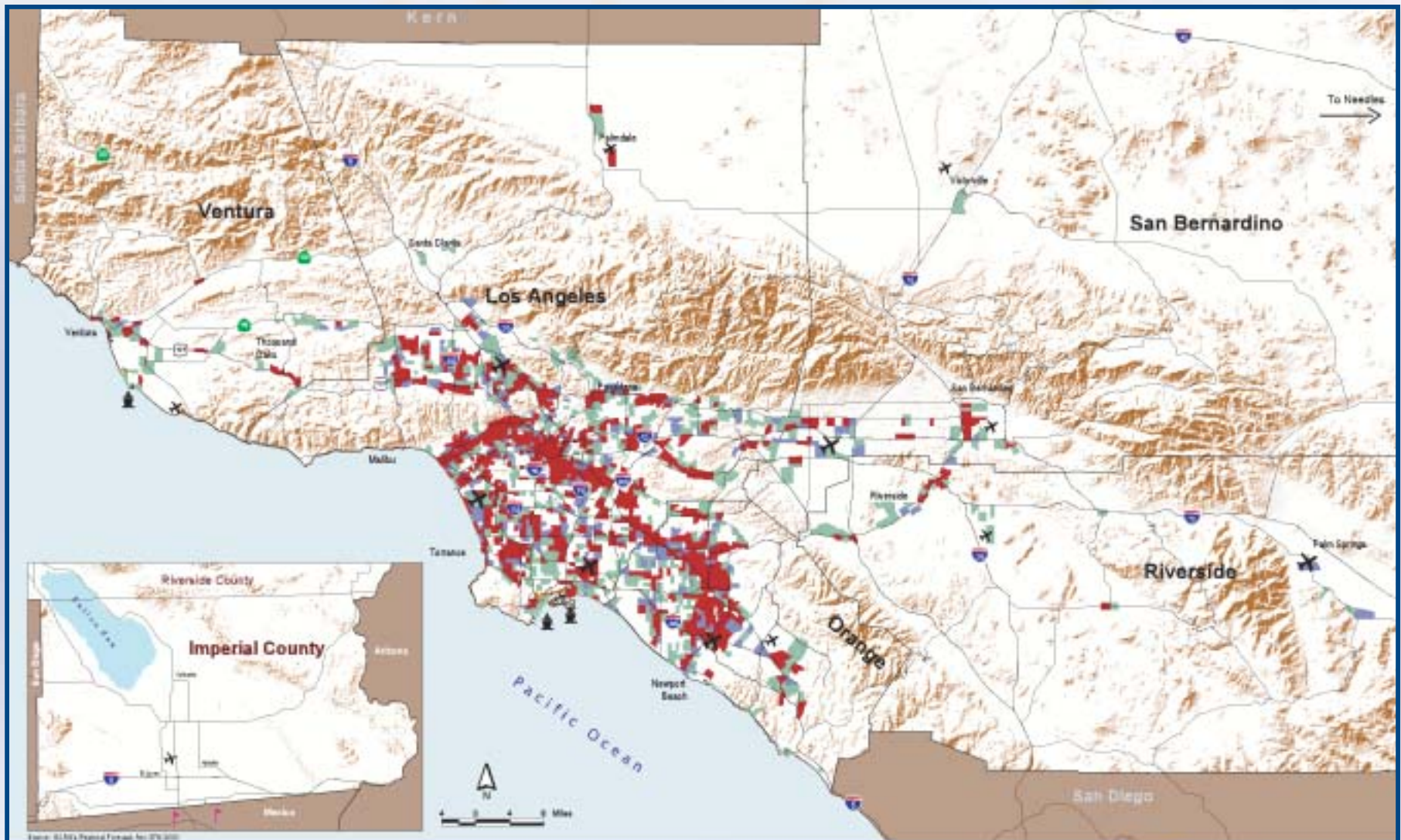
2025 Population Density



Distribution of Population Increase Between 1997 & 2025



1997 Employment Density



1997 Employment Density



The SCAG Region
2001 RTP

Jobs per Square Mile



USGS

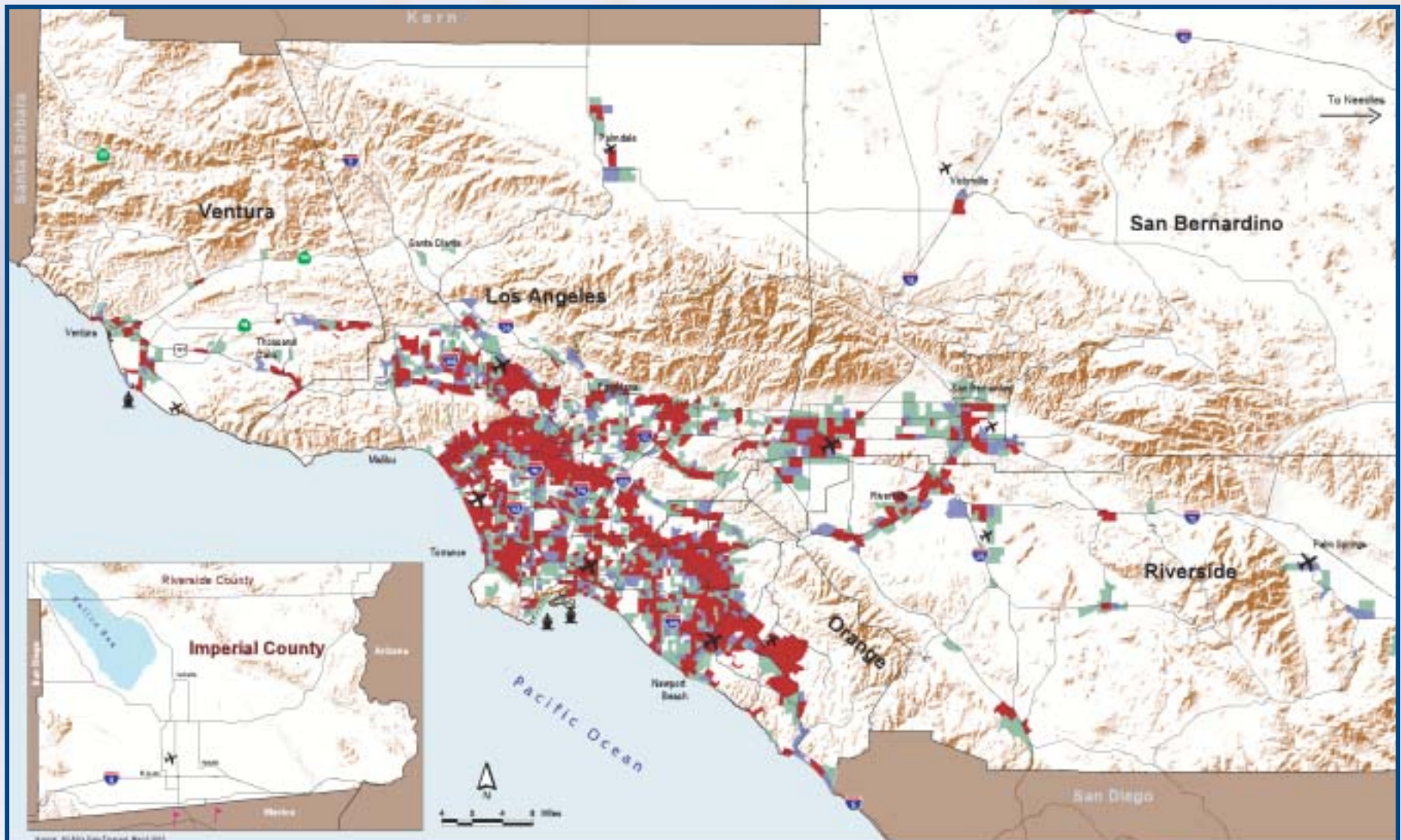


Southern California Association of Governments
April 2001

Exhibit 4.4



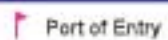
2025 Employment Density



2025 Employment Density



Port



Port of Entry



Airport / Potential Airport Site

The SCAG Region
2001 RTP

Jobs per Square Mile



Less than 2,000



2,000 - 3,000



3,000 - 4,000



4,000 or more

Freeways and Highways

200/01

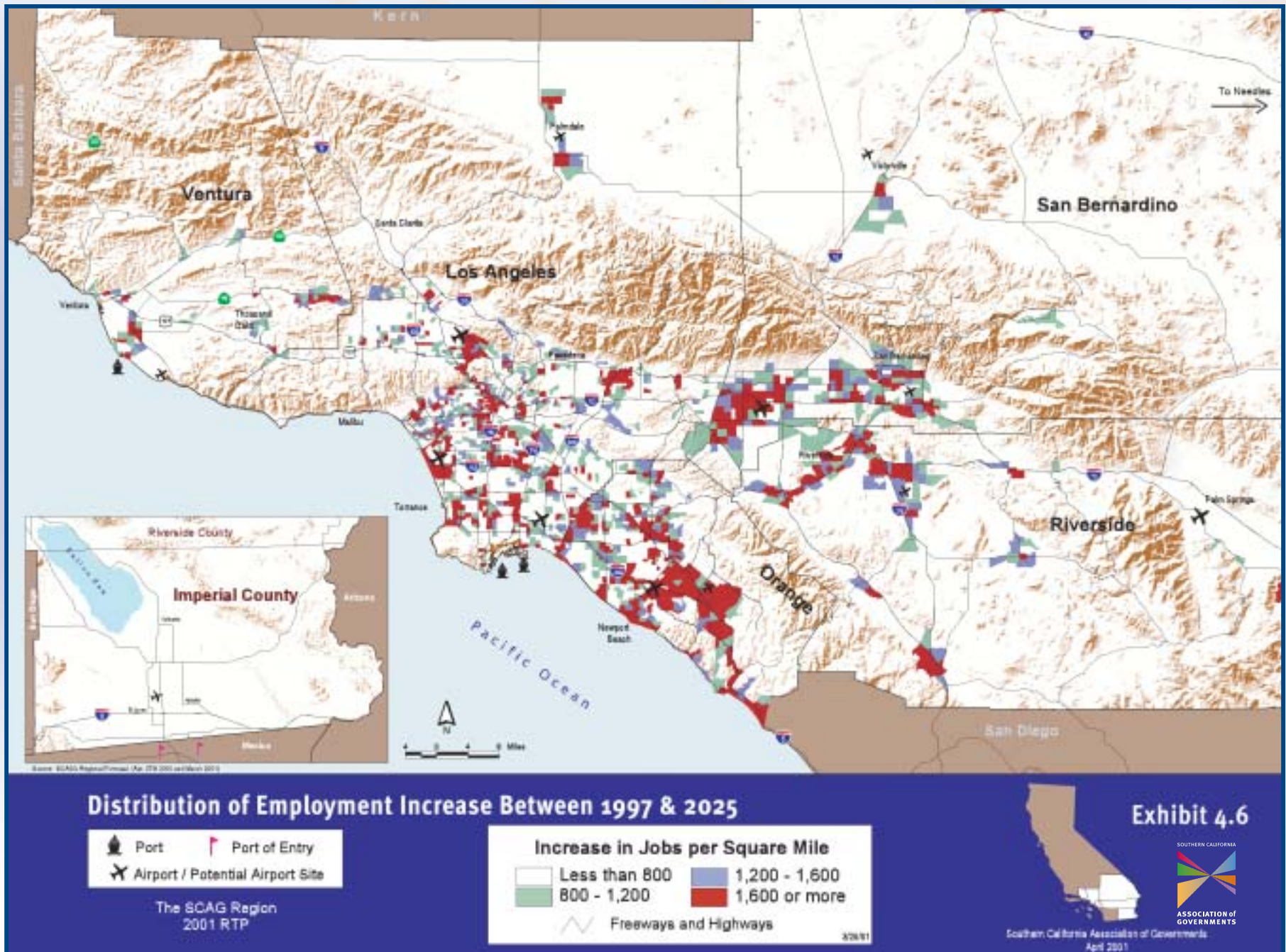


Southern California Association of Governments
April 2001

Exhibit 4.5



Distribution of Employment Increase Between 1997 & 2025



Finally, the emerging Internet economy and e-commerce will also affect almost every aspect of key regional planning variables, modeling tools and travel behavior. This technology can potentially affect land-use patterns, air quality, traffic congestion and local sales tax revenue as consumer and travel behavior changes. These trends—population and job growth, aging population and e-commerce—pose unprecedented challenges and uncertainties in the development of the 2001 RTP.

POPULATION, EMPLOYMENT AND HOUSEHOLD GROWTH: THE POLICY CHOICE

The 2001 RTP Baseline growth scenario presented earlier is a consensus forecast, derived from sound technical analysis of historical trends and through extensive local input and review process. These Baseline population, employment and household forecasts are considered to represent an unconstrained future growth scenario, not limited to any infrastructure constraints. Thus, the RTP medium aviation scenario—assuming all airports are not constrained and will be able to expand to meet regional aviation demand (also projected from Baseline growth)—is considered to be closest to the Baseline condition.

After reviewing the RTP Preliminary Environmental Impact Report and further aviation impact analysis, a preferred alternative—Scenario 8—was recommended by TCC for adoption. Since the final RTP aviation—Scenario 8—shows very different regional airport-system capacity configurations and associated passenger and cargo trip distributions from those under the RTP medium aviation scenario, it affects the distribution of the 2025 Baseline forecast of population, employment and household. The new growth distribution resulting from implementation of Aviation Scenario 8 would represent a definitive policy choice made by the Region in terms of growth patterns. Table 4.2 presents the 2001 RTP growth forecast based on this policy choice (Aviation Scenario 8) and relative differences from baseline growth figures.

Table 4.2

2001 RTP FINAL POPULATION, EMPLOYMENT AND HOUSEHOLD GROWTH IN 2025: BASELINE AND POLICY FORECAST (IN THOUSANDS)									
	Baseline Forecast			Policy Forecast-Aviation Scenario			Difference (Policy minus Baseline)		
	Population	Household	Employment	Population	Household	Employment	Population	Household	Employment
Imperial	318	98	94	318	98	94	0.0%	0.0%	0.0%
Los Angeles	12,338	4,119	5,291	12,277	4,098	5,259	-0.5%	-0.5%	-0.6%
Orange	3,416	1,068	2,044	3,431	1,073	2,053	0.4%	0.5%	0.4%
Riverside	2,834	934	1,006	2,856	942	1,014	0.8%	0.9%	0.8%
San Bernardino	2,787	890	1,086	2,821	901	1,104	1.2%	1.2%	1.7%
Ventura	951	309	432	940	306	428	-1.2%	-1.0%	-0.9%
SCAG Region	22,644	7,418	9,952	22,644	7,418	9,952	0.0%	0.0%	0.0%

Source: Baseline forecast—incorporating inputs and reviews from all cities and subregions. Policy forecast—growth redistributions among counties based on air passenger and cargo allocations specified by the adopted Aviation Scenario 8 regional airport configurations.

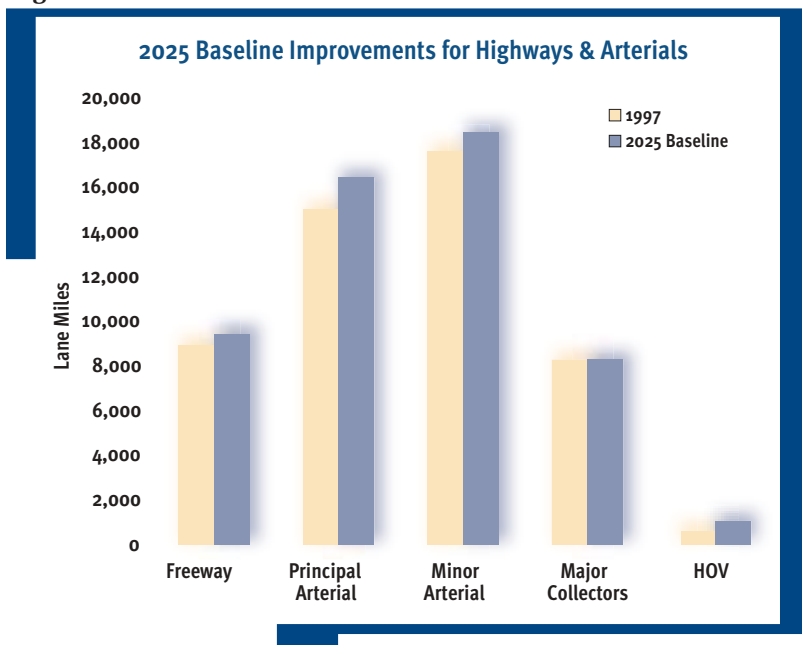
As indicated in Table 4.2, the 2001 RTP Scenario 8 caused some minor shifts of future growth from Los Angeles County to Orange County and Inland Empire. Relatively speaking, the job/household ratio for the two inland counties combined shows improvement. Therefore, the adoption of the 2001 RTP Scenario 8 would result in more balanced growth and bring positive impacts on congestion.

Red and blue areas shown in Exhibits 4.1 and 4.2 suggest a high growth rate. The worst congestion and slowest speeds are forecast for urban red areas and for the transportation corridors that link Los Angeles and Orange County urban centers with the blue areas in rural or outlying counties. For rural or outlying counties, if jobs do not follow population, the greater the change or percentage increase in population, the greater the strain on the transportation infrastructure.

TRANSPORTATION DEMAND AND BASELINE INVESTMENTS

During the 1950s and '60s, freeways and highways were constructed; during the '70s, these freeways and highways were widened and new lanes were added; and during the '80s and '90s, construction focused primarily on adding High-Occupancy Vehicle (HOV) lanes and building rail facilities. Figure 4.1 summarizes the increase in highway network miles that the Region is committed to funding and building in our Baseline investments between 1997 and

Figure 4.1



2025. Our Baseline investments include all committed projects in the 2000 Regional Transportation Improvement Program (RTIP), Governor's Traffic Congestion Relief Program for which the county commissions have committed matching funds and the TEA-21 priority projects for capital improvement as identified by the county commissions. The regionally significant Baseline projects are shown later, in Section V in Exhibit 5.3. A complete list of the Baseline projects is included in the Technical Appendix.

HOV lanes and rail will continue to be built, but the other facilities, though expanding slightly, will not keep pace with the expected 40 percent population growth. As can be seen in the congestion

delay maps (Exhibits 5.1 and 5.4 in Section V), the future transportation system is expected to be overwhelmed by new demand. With massive congestion and air quality problems projected, it is critical that the \$24.5 billion available for new projects in the Regional Checkbook be spent on those that perform best. The congestion maps graphically indicate the levels of congestion that the Region experiences today and may face in the year 2025.

Recently, the Region has seen a substantial increase in transit ridership—16 percent between 1995 and 1999. Transit ridership, though still representing a vital component of our transportation network, has steadily decreased as a percentage of all daily trips. Prior to 1995, the Region's transit ridership declined in absolute numbers, from a high in 1985 to an all time low in 1995, representing a loss of 100 million riders. The Region is just now approaching the previous ridership peak level of 1985. Many people continue to depend on reliable transit service to participate in the economic, cultural and social benefits of Southern California. An enormous challenge that we face is to deliver and improve transit service to provide both the transit-dependent population and discretionary riders with more effective and attractive service. This will be absolutely essential if we hope to retain or improve the transit mode share.

TRANSPORTATION AND AIR QUALITY CONFORMITY SETTING

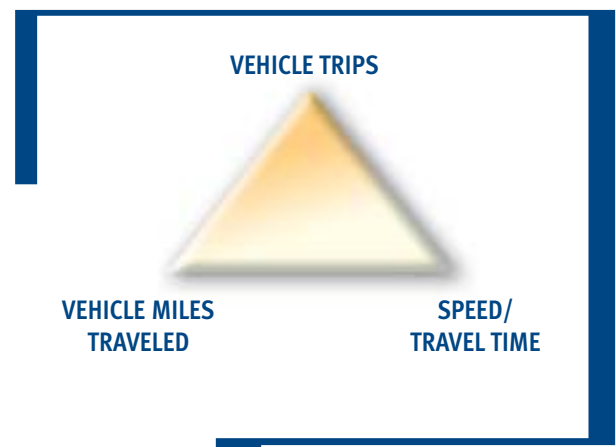
Under federal regulations and in federally designated non-attainment and maintenance areas, regional transportation plans, programs and projects must comply with the requirements of the CAA as reflected in the Transportation Conformity Rule. The Environmental Protection Agency (EPA) may designate as a federal “non-attainment area” any area that has not met the CAA health standards for one or more pollutant.

Air Basins and Air Districts in the Region

Transportation conformity analyses are based on the federal non-attainment areas and are usually described by the respective air basin(s) geography. Currently, the SCAG Region contains four air basins that are administered by five air districts as follows:

- ▶ The South Coast Air Basin (SCAB) covers the urbanized portions of Los Angeles, Orange, Riverside and San Bernardino counties and is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD).
- ▶ The Ventura County portion of the South Central Coast Air Basin (SCCAB) covers Ventura County and is within the jurisdiction of the Ventura County Air Pollution Control District (VCAPCD).
- ▶ The Mojave Desert Air Basin (MDAB) covers the desert portions of the Los Angeles, Riverside and San Bernardino counties. A small portion of this air basin is in Kern County, outside of the SCAG Region. The SCAG portion of this air basin is under jurisdiction of three air districts:
 - Mojave Desert Air Quality Management District (MDAQMD) administers portions of the MDAB situated in San Bernardino County and the eastern part of Riverside County. The Riverside County portion is known as the Palos Verdes Valley area.
 - SCAQMD administers a portion of the MDAB in Riverside County that is situated between the Salton Sea Air Basin (SSAB) and the Palos Verdes Valley area.
 - Antelope Valley Air Pollution Control District (Antelope APCD) administers the Los Angeles County portion of the MDAB.

Figure 4.2
Major Determinants of Mobile Source Emissions



- ▶ The SSAB covers the entire County of Imperial and the eastern desert portion of Riverside County. This air basin is under the jurisdiction of two air districts:
 - Imperial County Air Pollution Control District (ICAPCD) administers the Imperial County portion of the SSAB.
 - SCAQMD administers the Riverside County portion of the SSAB situated between the SCAB and the MDAB.

Criteria Pollutants

Transportation activities, particularly motor vehicle (on-road mobile sources), are major causes of air pollution. Four criteria pollutants (those for which the EPA has established health standards) are subject to air quality conformity for the RTP and the RTIP:



- ▶ Carbon monoxide (CO) is a product of automobile exhaust. CO reduces the flow of oxygen in the bloodstream and is particularly dangerous to persons with heart disease.
- ▶ Ozone is formed by the reaction between volatile organic compounds (VOC) and Oxides of Nitrogen (NO_x) in the presence of sunlight. Ozone negatively impacts the respiratory system.
- ▶ Nitrogen dioxide (NO₂) is created under the high pressure and temperature conditions in internal combustion engines. It impacts the respiratory system and degrades visibility due to its brownish color.
- ▶ Particulate matter less than 10 microns in size (PM₁₀) are tiny particulates of dust and soot that cause irritation and damage to the respiratory system.

Federal Non-attainment Areas

The boundaries of the federal non-attainment areas and their respective attainment years in the SCAG Region are as follows:

- ▶ **SCAB (excluding Banning Pass)**
The entire basin is a non-attainment area for the following pollutants. Each pollutant attainment year is cited [in brackets]: CO [Yr. 2000], 1-hour Ozone [Yr. 2010], NO₂ [Yr. 1995] and PM₁₀ [Yr. 2006].
- ▶ **Ventura County Portion of SCCAB**
The entire county is a 1-hour Ozone non-attainment area (attainment year 2005).
- ▶ **Antelope Valley Portion of MDAB**
The entire desert portion of Los Angeles County (known as Antelope Valley) is a non-attainment area for 1-hour Ozone (attainment year 2007).
- ▶ **San Bernardino County Portion of MDAB**
With the exception of the northern and eastern parts of the county, the rest is a 1-hour Ozone non-attainment area (attainment year 2007).

The desert portion of San Bernardino County contains two PM₁₀ non-attainment areas:

- ▶ **Searles Valley**, situated at the northwest corner of the County—with attainment year of 1994.
- ▶ **The rest of San Bernardino County within the MDAB**—with attainment year of 2000.
- ▶ **Riverside County Portion of SSAB**
The entire Riverside County portion of SSAB (known as Coachella Valley—including Banning Pass) is a non-attainment area for the following pollutants [attainment year]: 1-hour Ozone [Yr. 2007] and PM₁₀ [Yr. 1995].

Applicable SIP (Emissions Budgets and TCMs)

The 2001 RTP must conform to the applicable SIPs [emissions budgets and the Transportation Control Measures (TCMs)]. The U.S. Court of Appeals' March 2, 1999 ruling in *EDF v. EPA* mandated that only those emissions budgets approved or found adequate for conformity determinations by EPA can be used for the regional emission analyses. The applicable TCMs are those approved by EPA. For the 2001 RTP conformity determinations, the applicable emissions budgets and TCMs are established in the following SIPs:

- ▶ **Ozone SIPs**—The emissions budgets established in the 1994 ozone (1-hour standard) SIPs for the Antelope Valley of MDAB, the San Bernardino County portion of MDAB, the Coachella Valley portion of SCAB and the Ventura County portion of SCCAB function as the applicable emissions budgets for conformity analysis. The emissions budgets established in the 1999 ozone SIP (1-hour standard) for SCAB function as the applicable emissions budgets for conformity analysis.
- ▶ **Nitrogen Dioxide (NO₂) SIP**—The emissions budgets established in the 1997 NO₂ SIP (Maintenance Plan) for SCAB function as the applicable emissions budgets for conformity analysis.

For detailed information, see the Transportation Conformity Report included in the Technical Appendix.

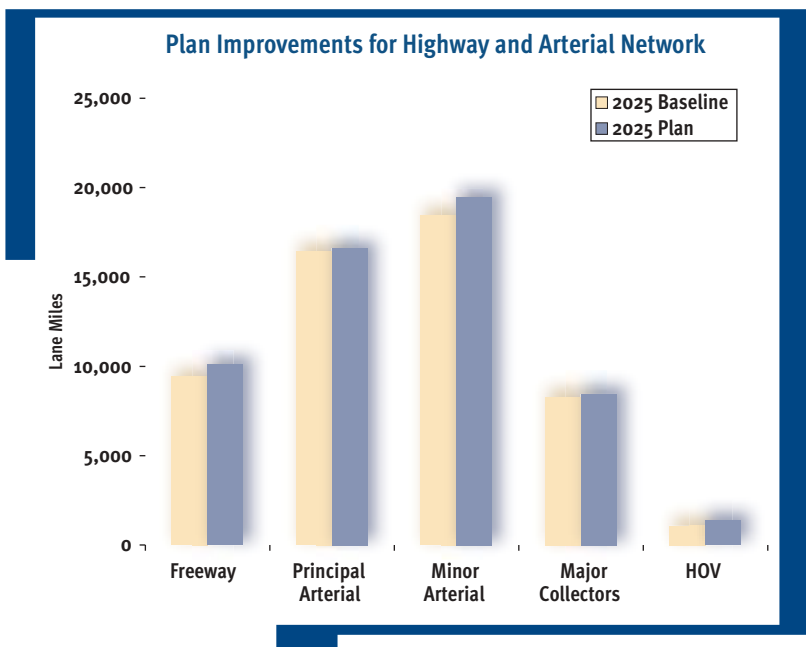


V.
strategic investments to
achieve regional goals

INTRODUCTION — OVERVIEW OF THE FUTURE REGIONAL TRANSPORTATION SYSTEM

Although the Region will be experiencing dramatic population and employment growth over the next 25 years, relatively little new funding may be expected for new highway construction or additional public transit if we fail to maintain the historical purchasing power of transportation revenues. Even with new strategies, the Region will be hard pressed to maintain the existing transportation system and target its remaining resources to the best-performing investments.

Figure 5.1



The Region has a massive transportation infrastructure, and regional agencies are committed to improving this system to meet the challenge created by continued population growth, employment growth and economic growth. Figure 5.1 summarizes the increase in highway network lane miles that would result from the implementation of the 2001 RTP over the Baseline by 2025. HOV lanes and rail will continue expanding, but the other facilities, though expanding slightly, will not keep pace with the expected 40 percent population growth.

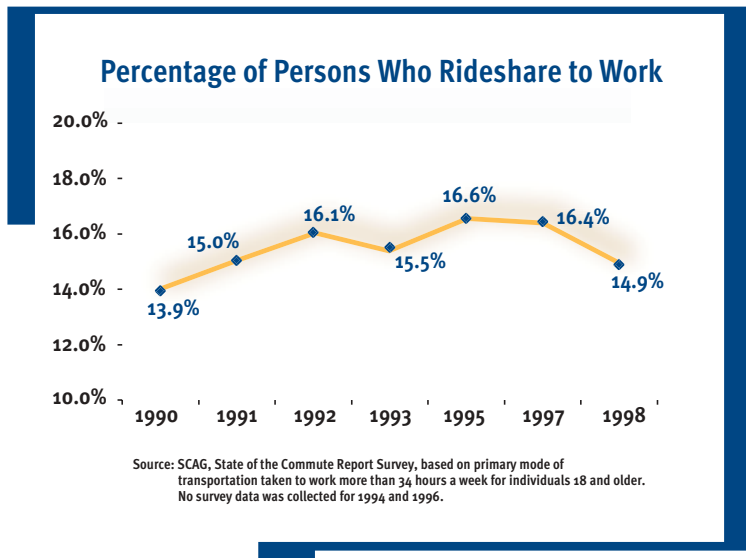
With the major congestion and air quality problems projected, it is critical that the \$24.3 billion identified for new projects in the Regional Checkbook (assuming the availability of new revenues) be spent on those that perform best. Exhibits 5.1 and 5.4 graphically indicate the levels of congestion that the Region experiences today and estimates of what the Region may face in the year 2025.

A comparison of the 1997 Baseyear map congestion with the 2025 Baseline congestion tells the following story:

- ▶ In 1997, 12 percent of the total freeway system was extremely congested during the peak hour. By 2025, estimates are that 26 percent will be extremely congested.
- ▶ In 1997, 18 percent of the average driver's time was spent driving in "stop and go" congested conditions. In 2025, based upon projections, that time will increase to 25 percent.
- ▶ Peak hour speed on some of the most congested freeways could deteriorate to less than 16 miles per hour in 2025.

Both HOV lanes and transit will play important roles in the future of the regional transportation system, but both of these critical elements face continuing challenges. Although lane miles for HOV have and will continue to increase

Figure 5.2

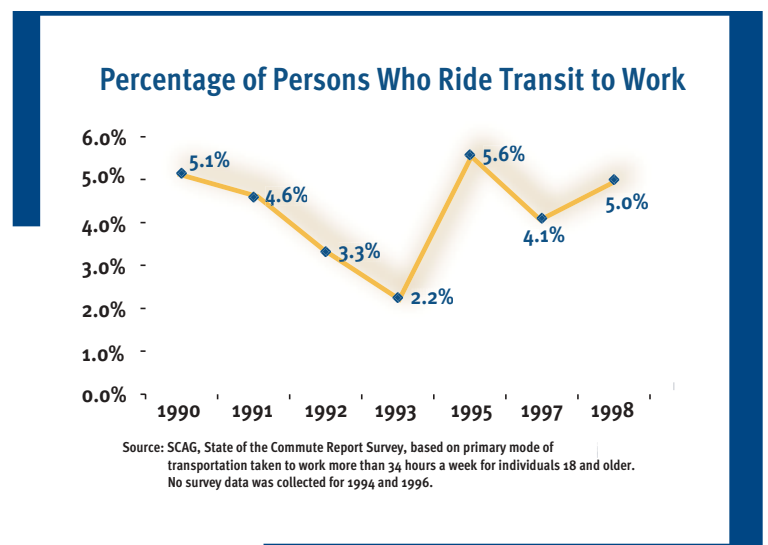


(by over 80 percent), the percentage of people who rideshare to work appears to fluctuate between 14 to 16 percent from 1990 through 1998 (see Figure 5.2). While the HOV lanes are utilized at 60 to 95 percent of capacity during peak periods, they are primarily being used by two-person cars, some three-person vehicles and some larger vehicles. Given the significant financial investment planned for HOV projects, it is important to assure that there is maximum use of HOV lanes by carpools and by vans and buses that can efficiently and effectively move larger numbers of people.

Transit ridership had been declining previous to 1995 (see Figure 5.3). The introduction of new rail facilities and local bus operations growth has boosted overall transit use.

Ridership has just now reached the peak levels experienced in 1985. In a study of the Los Angeles County Metropolitan Transportation Authority (LACMTA), SCAG found that 20 percent of the MTA bus lines carry 60 percent of the total ridership. At the same time, the study showed 20 percent of the lowest performing transit lines carry only 10 percent of the trips. Use of these low-performing bus lines raises the question of whether they are the most cost-effective way of providing transportation services. Is there a more efficient and less expensive way of providing transportation for people who rely on public transit but are now contending with a service that may be infrequent and inconvenient? Given these challenges, the Region needs to find ways to improve service and meet its mobility and air quality goals.

Figure 5.3



TRANSPORTATION SYSTEM SETTING

The Metropolitan Transportation System (MTS), which consists of existing multi-modal facilities having regional and national significance, is the backbone of our regional transportation system. The MTS can be broadly categorized into roadway network, transit network and the Goods Movement network. The MTS roadways include freeways, regionally significant state highways and arterials, as well as currently approved congestion management plans. The MTS transit component includes commuter rail network, inter-city rail system and the urban rail system, including the light rails and the subway. The Goods Movement component of MTS includes rail freight corridors and major truck routes using the freeways and regionally significant

state highways and arterials. The primary purpose of MTS is to distinguish the locally important facilities from those strategically significant at the regional and national level. There is a federal requirement to develop long-range plans that emphasize facilities for serving regional and national functions. Such differentiation clarifies the issues so that the concepts can be directly applied to planning and policy issues having inter-county, interstate and international implications.

In addition to the components identified under the MTS network, our regional transportation system includes minor arterials, major collectors in the roadway category, fixed route transit and other para-transit systems in the transit category, systems of airports and seaports and the non-motorized transportation network which includes bikeways and pedestrian walkways. The following is a description of the current state of the various components of our regional transportation system.

Table 5.1

HIGHWAY AND ARTERIAL NETWORK (LANE MILES)	
Facility	1997
Freeway	8,906
Principal Arterial	14,998
Minor Arterial	17,605
Major Collectors	8,262
HOV	582

HIGHWAYS AND ARTERIALS

Regional and local roads are an integral part of the Region's infrastructure. The vast majority of trips rely on the highway network, either for automobiles, buses, van-pools, trucks or, in many cases, even bikes. In fact, 99 percent of all trips, including trips on buses, occur on the highway and arterial network. The regional and local highway system faces mounting congestion that affects personal mobility, freight movement and air quality. The preservation, management and selective expansion of this system are crucial to the Region's economic vitality and the quality of life for the Region's residents.

In the current system, there are over 9,000 lane miles of freeway and High-Occupancy Vehicle (HOV) lanes linking the Region. Additionally, there are 32,600 lane miles of major and minor arterials. These roadways are an integral part of the transportation system, often acting as alternative routes to freeway driving. (See Table 5.1, which summarizes the key components of the Region's Highway and Arterial Network.)

Currently, there are approximately 580 lane miles of completed HOV system in the Region. Most of the HOV system is open to vehicles with two or more occupants. The exceptions are the HOV lanes on the I-10 (El Monte Busway), which require vehicle occupancy of three or more persons during peak periods. When the Plan is fully implemented, the regional HOV system will have about 1,400 lane miles of HOV facility.

In recent years a number of toll roads have been added to the transportation system mix. All of these new toll roads are privately funded:

- ▶ SR 91 Express Lanes, Orange County
- ▶ SR 73 San Joaquin Hills Transportation Corridor, Orange County
- ▶ SR 241 Foothill/Eastern Transportation Corridor, Orange County Regional Transit

REGIONAL TRANSIT

Southern California contains a vast transit network comprised of several modes of public transportation. The largest of the transit networks and backbone of the system is express and local bus service. This service provides an alternative to the auto as a means for people to get to and from work as well as make discretionary trips. The fixed guideway network includes interregional, commuter, urban and light rail. Local service is coordinated with rail service to create seamless transit and help increase overall transit trips. Public transit service is provided by a multitude of separate public agencies. Ten of these agencies provide 96 percent of the existing public bus transit service. In 1999, ridership approached 590 million annual passengers. This upward trend may be credited to new urban rail system service expansions and technology advancements made to some fixed routes. Despite this trend, transit ridership for all trips accounted for only 2 percent of total trips and less than 4 percent of home-to-work trips.

LACMTA, which provides approximately 70 percent of the total trips for the Region, continuously struggles to maintain low operating costs for public transit in Los Angeles County. In the fall of 2000, bus and rail operators went on strike for nearly six weeks, leaving Los Angeles

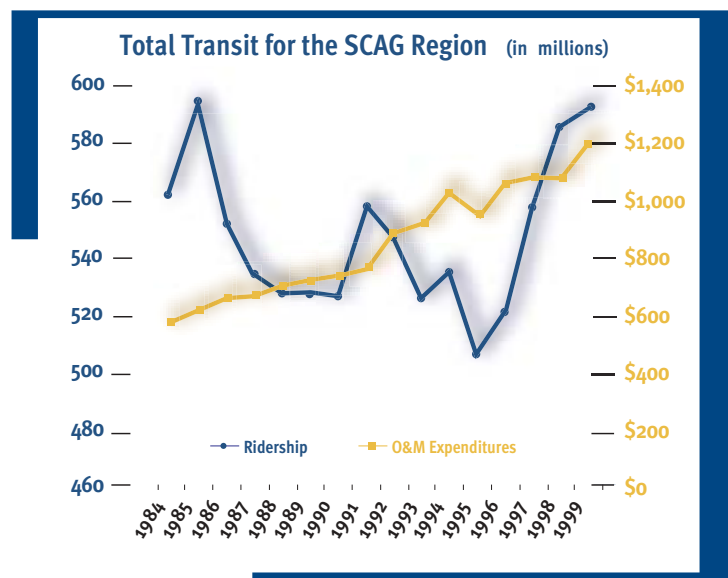
County with very limited public transportation. Municipal bus operators expanded service to help provide the public with some means of commuting to and from work. The strike ended in mid-October and resulted in an agreement that would help ensure the long-term financial viability of the LACMTA.

Many of the municipal operators in Los Angeles County have seen substantial growth in ridership and have managed to control costs to operate and maintain their systems. However, these smaller operations do continue struggling with securing operating funds that will allow them to provide efficient service to the growing population.

Urban Rail

LACMTA's urban rail lines operate seven days a week. During peak periods, trains are available every five minutes and off-peak, every twenty minutes. Existing urban rail lines are located in Los Angeles County, including the Blue Line from Long Beach to Downtown and the Green Line from El Segundo to Norwalk and the Red Line subway, which as of mid-2000 terminates in North Hollywood. Ridership on the Red, Green and Blue Lines exceeded 39 million annual passenger trips in 1999.

Figure 5.4



1997 Base Year Freeway Congestion



Commuter Rail / Interregional Rail

Commuter rail services are operated by the Southern California Regional Rail Authority (SCRRA). In October of 1992, the SCRRA began initial operation of the Metrolink commuter rail system consisting of three lines. Service on the initial system was greatly expanded following the 1994 Northridge earthquake. Currently, SCRRA operates six lines with an approximate weekday ridership of 31,000 trips. Additionally, Amtrak provides inter-city service, principally between San Diego and San Luis Obispo.

Shuttles and Circulators

When SCAG's Regional Council adopted the 1998 RTP, staff was directed to work with transit providers to determine how to best meet the objectives identified in the Plan. The Plan proposed that substantial service improvements and significant cost reductions could be achieved by implementing regional Smart Shuttle services (on-demand service supported by technology enhancements). The RTP projected that the 20-year savings from Smart Shuttle services and other transit system changes could be as high as \$2.65 billion.

Upon review of the Smart Shuttle progress to date, a significant promise that innovative services can increase the transit mode split can be seen. However, the assumptions of the 1998 RTP were overestimated and the "third tier" transit goals have been scaled back and adjusted for the 2001 RTP.

Service, such as DASH, Pasadena ARTS, Glendale Bee Line, Cerritos on Wheels, El Monte Transit and a host of local Dial-a-ride operations and Smart Shuttle demonstrations represent the implementation of third tier transit services. Cities within Los Angeles County fund services through local transportation sales tax returns, but cities in other counties lack this funding source. Exhibit 5.2 depicts existing fixed grade transit corridors in the Region.

MARINE PORTS

Southern California is served by three major seaports that are responsible for providing a major link between the West Coast of the United States and the Pacific Rim countries. These ports—Hueneme, Long Beach and Los Angeles—serve over 80 ocean carriers, the two major railroads and almost every trucking company in Southern California. The Port of Hueneme, with its recent expansion, ranks as one of the premier automobile and agricultural product handling facilities in California. The Ports of Long Beach and Los Angeles are full-service ports with facilities for marine containers, autos and various bulk cargo. With an extensive landside transportation network, these three ports moved more than 120 million tons of cargo in 1995.



In particular, the San Pedro Bay Ports (Long Beach and Los Angeles) dominate the container trade in the Americas by shipping and receiving more than 5 million containers annually. Together, these two ports rank third behind Rotterdam and Hong Kong in world sea trade.

RAIL FREIGHT AND TRUCKING

The SCAG Region is served by two main line railroads—the Burlington Northern and Santa Fe Railway Co. (BNSF) and the Union Pacific Railroad (UP). These railroads link Southern California with other U.S. regions, Mexico and Canada either directly or via their connections with other railroads. They also provide freight rail service within California. In 1995, these railroads moved more than 91 million tons of cargo in and out of Southern California.

The SCAG Region is also served by three short line or switching railroads:

- ▶ The Pacific Harbor Line (formerly the Harbor Belt Railroad), which handles all rail coordination involving the Ports of Los Angeles and Long Beach, including dispatching and local switching in the harbor area.
- ▶ The Los Angeles Junction Railway Company, owned by BNSF, which provides switching service in the Vernon area for both the BNSF and UP.
- ▶ The Ventura County Railroad, owned by Rail America, Inc., which serves the Port of Hueneme and connects with the UP in Oxnard.

These railroads perform specific local functions and serve as feeder lines to the trunk line railroads for moving goods to and from Southern California.

The two main line railroads also maintain and serve major facilities in the SCAG Region. Intermodal facilities are located in Commerce (BNSF), East Los Angeles (UP), San Bernardino (BNSF) and Carson near the San Pedro Bay Ports (UP), and provide on-dock and near-dock container transfer from the Ports of Los Angeles (UP/BNSF) and Long Beach (UP/BNSF) as well as transfer of domestic truck trailers onto trains. Major classification yards are located in Barstow (BNSF), East Los Angeles (UP), Commerce (BNSF), Industry (UP) and West Colton (UP), and auto loading facilities are found in Ontario (UP) and San Bernardino (BNSF).

The trucking industry, including common carrier, private carrier, contract carrier, drayage and owner-operator services, handles both line-haul and pick-up and delivery. In addition to using the public highway system for over-the-road and local service, the industry is served by a considerable infrastructure of its own. This includes truck terminals, warehousing, consolidation and trans-loading facilities, freight forwarders, truck stops and maintenance facilities. These facilities are especially concentrated in the South Bay and Gateway Cities areas, including Wilmington and Carson and extending generally between LAX and the San Pedro Bay ports, along the 710 Corridor north to Vernon, Commerce and Downtown Los Angeles; east through the San Gabriel Valley to Industry, Pomona and Ontario; and thence to the Inland Empire in Fontana and Rialto. Truck related facilities are also located in Glendale, Burbank and Bakersfield. Specialized facilities for trucking that provide air cargo ground transport are located around regional airport facilities, notably LAX and Ontario.

REGIONAL AVIATION SYSTEM

The SCAG Region has 65 airports, including six commercial service airports, 45 general aviation, 11 existing or recently closed military air bases, two limited commercial service airports and one joint-use facility. Six commercial service airports handle the majority of passenger air traffic: Burbank, John Wayne/Orange County, Long Beach, Los Angeles International, Ontario International and Palm Springs. Limited commercial service exists at Oxnard and Imperial County airports.

In all, some 80 million annual passengers (MAP) were served in the Region in 1997, double the number served in 1980. The level of air passenger demand is forecast to more than double again before 2025. While none of the individual airports is the largest in the U.S., the Region's airports taken together make Southern California the busiest of all regions in the country.

Air cargo is the fastest growing method of transporting goods in and out of the Region and is expected to continue to increase faster than passenger demand. Los Angeles International and Ontario International are the major cargo hauling airports, handling about 96 percent of all regional air cargo, with LAX alone accounting for 78 percent of the traffic. The impact on ground transportation of freight movement to and from the airports is significant, but possible conversion of several military airports to commercial use may spread this burden more evenly.



To better meet the aviation needs forecasted for the Region, the 1998 RTP developed various aviation policies, principles and action steps. In particular, Policy Nos. 8, 18, 19 and 20 in the 98 RTP pertained to aviation.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

Transportation Demand Management (TDM) is the all-inclusive term given to a variety of measures used to improve the efficiency of the existing transportation system by managing travel demand. Travel behavior may be influenced by mode, reliability, frequency, route, time and costs, support programs/facilities and education. TDM strategies encourage the use of alternatives to the single occupant vehicle such as carpools, vanpools, bus, rail, bikes and walking (for purposes of the RTP, transit and non-motorized strategies are separated out). Alternative work hour programs such as compressed work-week programs, flextime and telecommuting (teleworking) are also TDM strategies, as are parking management tactics such as preferential parking for carpools and parking pricing.

2000 Commuter Rail, Urban Rail and Rapid Bus System



Carpools

Carpooling is currently the number one alternative to driving alone in the Los Angeles area. As of the 1990 Census, carpooling moved three times more workers each workday than transit (1,057,051 vs. 310,616). Among the ten largest metropolitan areas in the country, according to the 1990 Nationwide Personal Transportation Study, the greater Los Angeles area has the highest carpooling rate in the nation. In addition, Los Angeles is the only major metropolitan area in the nation where carpooling has been maintaining its relative market share.

Jitney Service

The 1998 RTP assumed the use of Smart Shuttles, local circulators and jitney services to replace existing less efficient bus routes. A jitney service can best be described as an on-demand personal transit service. This type of service is common in Middle Eastern, Asian, African and South American cities where bus or rail alternatives are impractical or non-existent.

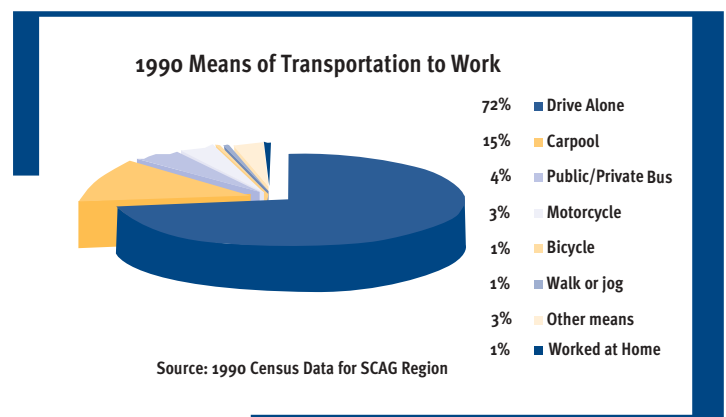
In the SCAG Region, a number of demonstration projects have produced mixed results as to the viability of personal transit services. The demonstration projects indicate that there is a niche market potential for jitney-type services in certain neighborhood areas, special attractors and at regional attractors such as large employment and commercial retail centers.

In Southern California cities, some form of limited jitney services appear to exist. These take the form of “bandit cabs.” What is known about these services is that they are neighborhood oriented, family operated and currently provide service to people that can not use existing public transit or commercial taxi /van services. Little operational information is available on these services primarily because they are “invisible under the existing regulatory environment” and because a large percentage of the operators may be illegal immigrants.

Implementation of this type of service is not without barriers, consisting of:

- ▶ state laws & local ordinances
- ▶ institutional relationships
- ▶ regulatory requirements
- ▶ safety issues

Figure 5.5

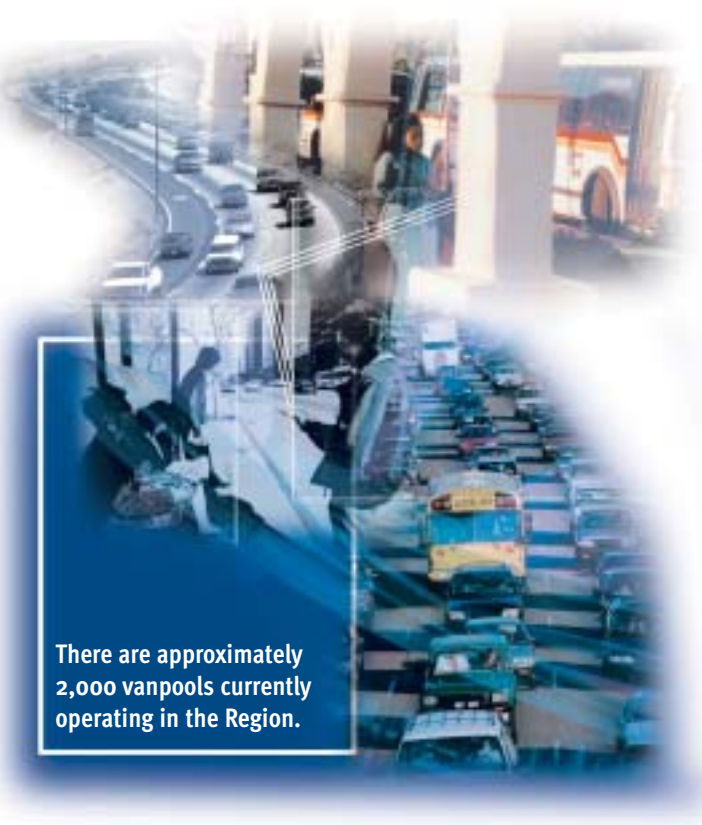


Currently jitney- and shuttle-type services are opposed by existing transit providers, both public and private. These services do not easily conform to local ordinances and state laws, the existing regulatory environment (local and PUC) and licensing requirements (drivers, insurance, etc.).

A full evaluation of jitney-type service(s) will be conducted in the next calendar year when funding is available.

Vanpools

There are approximately 2,000 vanpools currently operating in the Region. While vanpooling is the mode choice for a small portion of the commuting population, the vehicle-miles-traveled reduced is significant given the long trip distances vanpools travel (35 miles average one-way trip distance) and the length of time members remain in their vanpool arrangement (average of 28 months). Vanpool programs are primarily operated by the private sector, thereby utilizing minimum subsidy.



There are approximately 2,000 vanpools currently operating in the Region.

Advanced Traveler Information Systems (ATIS)

Advanced Traveler Information Systems (ATIS) provide household and business customers with information that they can use 24 hours a day to make current and future decisions regarding the most favorable means, route and time for work, recreational and other trips. For the immediate and future trip, the traveler can obtain up-to-the-minute information on freeway, tollway and street congestion; times and speeds for alternate trip origins and destinations; and shuttle, bus, rail, plane and ship schedules, connections and costs. In addition, information is available on traffic accidents, incidents, alternative routes and weather.

This information can be obtained in many ways: radio and television, specific traveler-information telephone numbers, the Internet, WEB, kiosks in convenient public and work locations and in-vehicle devices. Information is available in different forms—orally and visually, in text, tables and maps.

Cities, counties, County Transportation Commissions, transit providers, subregional associations, Caltrans and private organizations are working together to develop data collection systems to process the data through public and private transportation management centers, and to deliver the information to travelers.

Through the Traveler Advisory News Network (TANN), the Southern California Economic Partnership (Partnership) currently provides “real time” traffic information as part of the Orange County Model Deployment, a current Partnership demonstration project for ATIS. The system also provides data on traffic incidents, transit schedules and itinerary planning. Through TANN affiliates, this data is available to digital communications “palm” devices, pagers and in-vehicle devices, as well as through Internet/intranet connections.

While the potential benefit of a well-thought-out ATIS system is obvious, much needs to be done to develop ATIS to reach travelers with information about alternatives before they make their mode choices.

Telecommuting/Work-at-Home

The 2001 RTP assumes that 2.3% and 4.7% of all work trips would be reduced due to telecommute and work-at-home in 2010 and 2025 respectively. Based on SCAG’s State of the Commute Report, the rate of telecommuting has remained fairly constant— hovering at around 2 percent of all work trips. Yet, based on census data, work-at-home doubled between 1980 and 1990. While there is no empirical evidence that this growth rate can be sustained into the future, it is reasonable to

assume moderate future increases in work-at-home as well as telecommuting due to the infusion of technology into the workplace and the ease of communicating and working at nearly any location.



Alternative Work Schedules

Alternative work schedules enable commuters to flex their hours at the workplace to avoid peak travel-time periods. In addition, commuters who opt to participate in a compressed work week schedule help to alleviate peak hour congestion by not reporting to the workplace on the days that they are off work.

Awareness of alternative work schedules (4/40, 9/80 and 3/36 schedules) by workers has remained fairly consistent throughout the 1990s. However, since 1994, participation in these programs has fallen by more than half. Participation by employees at sites with fewer than 200 employees is especially low.

TDM Support Facilities/Programs

TDM support facilities /programs are essential components of the TDM strategies. The following paragraphs describe some of the key elements of these components.

Park-and-Ride Facilities

Park-and-ride facilities are an essential component of the transportation system. Their objective is to provide a safe and convenient location for commuters to switch from single occupant vehicles to high occupancy modes such as bus, rail, carpools and vanpools.

The Region's park-and-ride system allows many commuters to park on a daily basis at designated hub locations and to transfer to express bus services or, in many cases, to vanpools and carpools. Notably, the daily use of the system varies tremendously across the Region, with some lots operating at over 100 percent capacity while others are less than 10 percent full. These drastic variations in use are due, in part, to deferred or substandard maintenance practices, lack of security and a simple lack of marketing to inform commuters of facility locations, restrictions and services. Addressing these issues is essential if the Region's park-and-ride system is to reach its maximum potential and continue to be an integral part of the Region's transportation infrastructure.

HOV Lanes Education and Public Outreach

Significant investments have been made in developing our regional HOV lanes system. However, much can be done to educate the public on how to use it. HOV marketing activities should begin as early as possible in the project planning stages, peak at the time the project opens and continue over the life of the project. Moving individuals out of single occupancy vehicles requires a significant behavior change. It takes a long-term commitment involving interagency coordination and actions by public and private organizations, including the media.

Regional Guaranteed Ride Home Program

Guaranteed Ride Home Programs (GRH), also called Emergency Ride Home Programs (ERH), have been implemented at numerous companies/agencies throughout the United States over the past 10-15 years. The programs provide a free ride home by taxi or rental car (specifics differ among programs) to encourage employees to rideshare because they often find that drivers fear getting trapped at work if an emergency comes up in the middle of the day, or if they have to work late.

As a result of the GRH programs, some solo drivers switch to a ridesharing or transit commuting alternative. Experience over the past ten years has shown that commuters rarely need to use the free ride option; its effectiveness lies in commuters' knowing that it is available. Nationwide, GRH programs have become recognized as highly cost-effective programs averaging 2-4 percent usage by the total population registered.

Currently, there is not a regional GRH program. However, Ventura County has a countywide program and some of the local Transportation Management Agencies and individual employers do offer programs. The Mobile Source Air Pollution Reduction Review Committee (MSRC) will be considering a potential pilot project in the next fiscal year.

NON-MOTORIZED TRANSPORTATION

Biking and walking primarily constitute non-motorized transportation. Bikeways and pedestrian paths can play a significant role in meeting the transportation needs of our Region. Particularly, non-motorized transportation plays a bigger role in the densely populated, mixed land-use area or corridors.

The Region's bikeways encourage non-motorized commutes, serve as recreational facilities and provide inexpensive, environmentally-friendly transportation opportunities. More than 1,000 miles of Class I and II bikeways exist through the Region, as well as mountain bike trails, which are also designated for hiking and horseback riding. Class I bikeway has a right-of-way completely separated from any street or highway for bicycle travel. Class II bikeway has a striped lane for one-way bicycle travel on a street or highway. The City of Los Angeles alone has more than 500 miles of Class I and II bikeways.

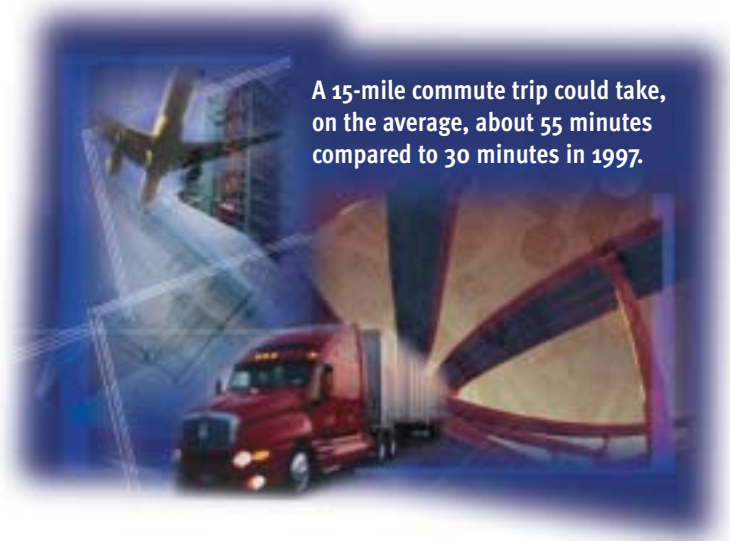
According to the 1990 Census, biking and walking accounted for approximately 0.7 and 3.0 percent of total work trips, respectively. SCAG's State of the Commute Report indicates that biking and walking have hovered around 0.5 and 1.5 percent, respectively, in the 1990s.

STRATEGIC INVESTMENTS

It is clear that the opportunities to expand our transportation system to keep in pace with the projected growth is limited. While the population, employment and vehicle miles traveled (VMT) are expected to grow by more than 40 percent by the year 2025, our transportation network in terms of lane and route miles, on the other hand, is expected to increase by less than 10 percent. The constraints, both financial and environmental, to expanding our system capacity are substantial. Given this reality, the basic strategy used for investment in our transportation system can be summed up in the following guiding principles:

- ▶ Target capital improvement investments in projects that have the potential to maximize system capacity based on performance.
- ▶ Allocate adequate spending to operating and maintaining the system so that the system can continue to function effectively and efficiently.
- ▶ Optimize the utilization of the available system by promoting demand management strategies and other trip reduction strategies.

The individual components of the transportation plan described in the following section have been developed on this overall strategy. A complete list of projects proposed for investment is provided separately as an integral part of this document in the Technical Appendix. The following paragraphs briefly describe investment strategies by mode.



A 15-mile commute trip could take, on the average, about 55 minutes compared to 30 minutes in 1997.

HIGHWAYS AND ARTERIALS

If we were to do nothing beyond completing committed (Baseline) projects by the year 2025, our freeway network mixed-flow lane capacity would increase by less than 10 percent and the arterial system would increase by about 7 percent (see Exhibit 5.3 for regionally significant Baseline projects). On the other hand, the HOV lane network will nearly double in terms of lane miles by 2025, thereby signifying the need to coordinate the Transportation Demand Management (TDM) strategies to ensure maximum utilization of our HOV system.

Under the Baseline scenario we could experience an increase in congestion delay, as a Region, of over 100 percent by the year 2025. The average speed on our freeway system, in the congested direction during the morning peak period, could deteriorate to about 16 miles per hour. The aggregated daily vehicle hours spent in the Region could increase by over 50 percent to 14 million hours and the delay hours could increase over 100 percent. A 15-mile commute trip could take, on the average, about 45 minutes compared to 30 minutes in 1997. The most congested corridors, such as the I-405, SR-91, I-5, US-101 and I-10 through the urban Region, will continue to get worse. The overall investment target is to provide maximum relief to the most heavily traveled commuter corridors.

Highway and Arterial Investments

The 2001 RTP contains over \$15 billion in highway and arterial improvement projects in addition to already committed or programmed projects. This figure includes all capital improvements proposed on the highway and arterial network, including mixed-flow lanes, HOV lanes, interchanges, truck climbing lanes, truck lanes and grade crossings. The development of this component of the 2001 RTP was guided by the RTP Technical Advisory Committee (TAC).

Estimates indicate that additional arterial improvement needs total more than \$50 billion, in addition to the projects that are already identified in the 2001 RTP. This unconstrained list is far beyond the available public funds in the Region over the Plan's time frame. Arterial and interchange improvements in addition to those included in the Baseline will be eligible for programming when future funding becomes available and are subject to their performance relative to SCAG's Performance Indicators. The 2001 RTP proposes almost \$3 billion in new expenditures for arterials based on performance, in addition to specific arterial improvement projects identified as part of the constrained plan.

The highway projects identified in the Governor's Traffic Congestion Relief Plan (TCRP) can be viewed mostly as capacity enhancement projects. These projects are included as part of the Baseline for the 2001 RTP. The Governor's plan devotes \$948 million to highway-related projects, about 41 percent of the total spending proposed. The most notable of these are HOV gap closures on Interstates 405, 10, 5 and 215 as well as State Routes 91, 60 and 22. All of these projects were identified in the 1998 RTP as either Baseline or constrained plan projects. Mixed-flow, auxiliary lane, interchange improvement and signal improvement projects are also proposed in the TCRP and are consistent with the 1998 RTP.

2025 Regionally Significant Baseline Projects



Table 5.2

HOV PROJECTS			
Project	Implementation Schedule	County	Project Development Requirement/Status
I-405 NB (US-101 to Burbank Blvd)	2010	Los Angeles	PSR Needed
I-710 (I-10 to Huntington Dr)	2010	Los Angeles	PSR Needed
I-710 (Huntington Dr to I-210)	2020	Los Angeles	PSR Needed
SR-14 (Ave P-8 to Ave-L)	2015	Los Angeles	PSR Needed
I-5 (SR-1 to Avenida Pico)	2020	Orange	PSR Needed
I-15 (San Bernardino Co to SR-91)	2020	Riverside	PSR Needed
I-215 (SR-60/I-215/SR-91 to San Bernardino Co)	2020	Riverside	PSR Needed
I-215 (I-15 to s/o Nuevo)	2025	Riverside	PSR Needed
I-215 (Ramona Exwy to East Jct SR-60/I-215)	2025	Riverside	PSR Needed
SR-71 (San Bernardino Co to SR-91)	2015	Riverside	PSR Needed
I-10 (I-15 to Yucaipa)	2020	San Bernardino	PSR Needed
I-10 (Yucaipa to Riverside Co)	2025	San Bernardino	PSR Needed
I-15 (Riverside Co to I-215)	2025	San Bernardino	PSR Needed
I-15 (I-215 to D St)	2020	San Bernardino	PSR Needed
I-215 (Riverside Co to I-10)	2010	San Bernardino	PSR Needed
I-215 (SR-30 to I-15)	2025	San Bernardino	PSR Needed

Note: Typically, Project Study Reports (PSR) must be completed for these projects in order to compete in the Call for Projects for the RTIP.

The total investment proposed for HOV completion is \$1.2 billion. The Baseline projects are listed only in the Appendix.

Strategic capacity improvements can be combined with improved management of the regional freeway system and peak period travel demand-reduction strategies to effectively meet the Region's travel needs. The Region needs additional innovative capacity enhancements, but as always, innovations must meet a benefit-cost test.

Major categories of the proposed improvements for Highway and Arterials in the 2001 RTP include HOV gap closures, HOV connectors, mixed-flow improvements, toll lanes and high occupancy toll lanes as well as strategic arterial improvements. The 2001 RTP is based on input from the 1998 RTP, and priorities submitted by the county commissions and the subregions. The following provides a brief description of individual categories of improvements proposed in the Plan.

HOV Gap Closure

The completion of the HOV system will be an important step towards meeting future travel demand. A number of HOV projects proposed in the 1998 RTP have already been programmed in the current RTIP. The following table provides a summary of HOV gap closure projects proposed in the 2001 RTP beyond the Baseline that are regionally significant.

HOV Connectors

HOV connectors are an important element of the regional HOV system. The connectors are constructed with drop ramps to the HOV lane along the freeway median to minimize weaving conflicts and maintain speeds. A number of HOV connectors are identified in the 2025 Baseline. The 1998 RTP identified two additional HOV freeway-to-freeway connector projects. While the cost-effectiveness of HOV connectors appears questionable on a project-by-project basis, some investments in HOV connectors are justified by overall system performance. The following table provides a summary of HOV connector projects identified in the 2001 RTP as part of the constrained projects beyond the Baseline.

Table 5.3

HOV CONNECTOR PROJECTS			
Project	Implementation Schedule	County	Project Development Requirement/Status
I-5 / SR-170	2025	Los Angeles	PSR Needed
I-5 / I-405	2025	Los Angeles	PSR Needed
SR-22 / I-5	2025	Orange	In Environmental
SR-22 / SR-55	2025	Orange	In Environmental
SR-22 / I-405	2010	Orange	In Environmental
I-405 / I-605	2010	Orange	In Environmental
SR-60 / I-215 E Jct east to SR-60	2010	Riverside	PSR Completed/PAED Pending
SR-60 / I-215 E Jct south to I-215	2025	Riverside	PSR Needed
I-10 / I-215	2025	San Bernardino	PSR Needed
I-10 / I-15	2025	San Bernardino	PSR Needed

The total investment proposed for HOV connectors is \$461 million. The Baseline projects are listed only in the Appendix.

Mixed Flow

Gaps in the freeway network create traffic bottlenecks during peak use. Several new mixed-flow freeway lanes are proposed to close gaps, increase capacity in certain congested commuter corridors and address county-to-county travel, especially from population-rich to employment-rich areas. Several routes are under consideration in the Four Corners area, where Los Angeles, Orange, Riverside and San Bernardino counties converge. SCAG, Caltrans and Riverside and

2025 Baseline Freeway Congestion



Table 5.4

MIXED-FLOW PROJECTS			
Project	Implementation Schedule	County	Project Development Requirement/Status
SR-111 (SR-98 to I-8)	2010	Imperial	PSR Needed
SR-115 (Evan Hewes to SR-78)	2010	Imperial	PSR Needed
I-5 (Rosecrans to Orange Co)	2010	Los Angeles	PSR Needed
I-5 Ultimate—Interchanges from Orange Co to Rosemead Blvd	2025	Los Angeles	PSR Needed
I-710 (I-10 to Huntington Dr)	2010	Los Angeles	PSR Needed
I-710 (Huntington Dr to I-210)	2020	Los Angeles	PSR Needed
SR-57 / SR-60 Interchange	2025	Los Angeles	PSR Needed
SR-57 (auxiliary lanes Los Angeles Co to SR-22)	2010	Orange	PSR Needed
SR-91 (westbound auxiliary lane SR-57 to I-5)	2020	Orange	PSR Needed
SR-91 (auxiliary lanes SR-241 to SR-71)	2025	Orange	PSR Needed
I-10 (Monterey to Dillon)	2010	Riverside	PSR Needed
I-15 (SR-91 to SR-60)	2020	Riverside	PSR Needed
I-215 (Eucalyptus to Columbia)	2025	Riverside	PSR Needed
I-215 (I-15 to s/o Nuevo)	2025	Riverside	PSR Needed
SR-71 (San Bernardino Co to SR-91)	2015	Riverside	PSR Needed
I-215 (I-10 to SR-30)	2010	San Bernardino	PSR Needed
I-215 (SR-30 to I-15)	2025	San Bernardino	PSR Needed
SR-30 (Highland to I-10)	2020	San Bernardino	PSR Needed
SR-58 (Kern Co to I-15)	2010	San Bernardino	PSR Needed
US-395 (I-15 to n/o Desert Flower Rd)	2020	San Bernardino	PSR Needed
SR-118 (Tapo Cyn to New LA Ave)	2015	Ventura	PSR Needed

The total investment proposed for mixed-flow improvements is \$5.4 billion, including new corridors. The Baseline projects are listed only in the Appendix.

Orange counties are exploring methods to approach new corridor development in an environmentally sensitive manner. Most of these projects are proposed for inclusion in the 2001 RTP. Regionally significant mixed-flow improvements, proposed in the 2001 RTP beyond the Baseline projects, are shown in Table 5.4.

Toll Lanes and HOT Lanes

New HOT lane facilities include expanded capacity parallel to SR-91 to address east /west congestion in the Riverside County area. While additional work is in progress through the CETAP process to identify and study the feasibility of specific alignments in this corridor, this Plan acknowledges the need for additional capacity in this corridor.

Table 5.5

TOLL CORRIDOR PROJECTS			
Project	Implementation Schedule	County	Project Development Requirement/Status
SR-241 to Riverside Co	2010	Orange	PSR Needed
Orange Co to I-15	2010	Riverside	PSR Needed

The total investment proposed for toll corridor projects is \$300 million in public funding and \$1.3 billion in private funding. The Baseline projects are listed only in the Appendix.

Community and Environmental Transportation Acceptability Process (CETAP)

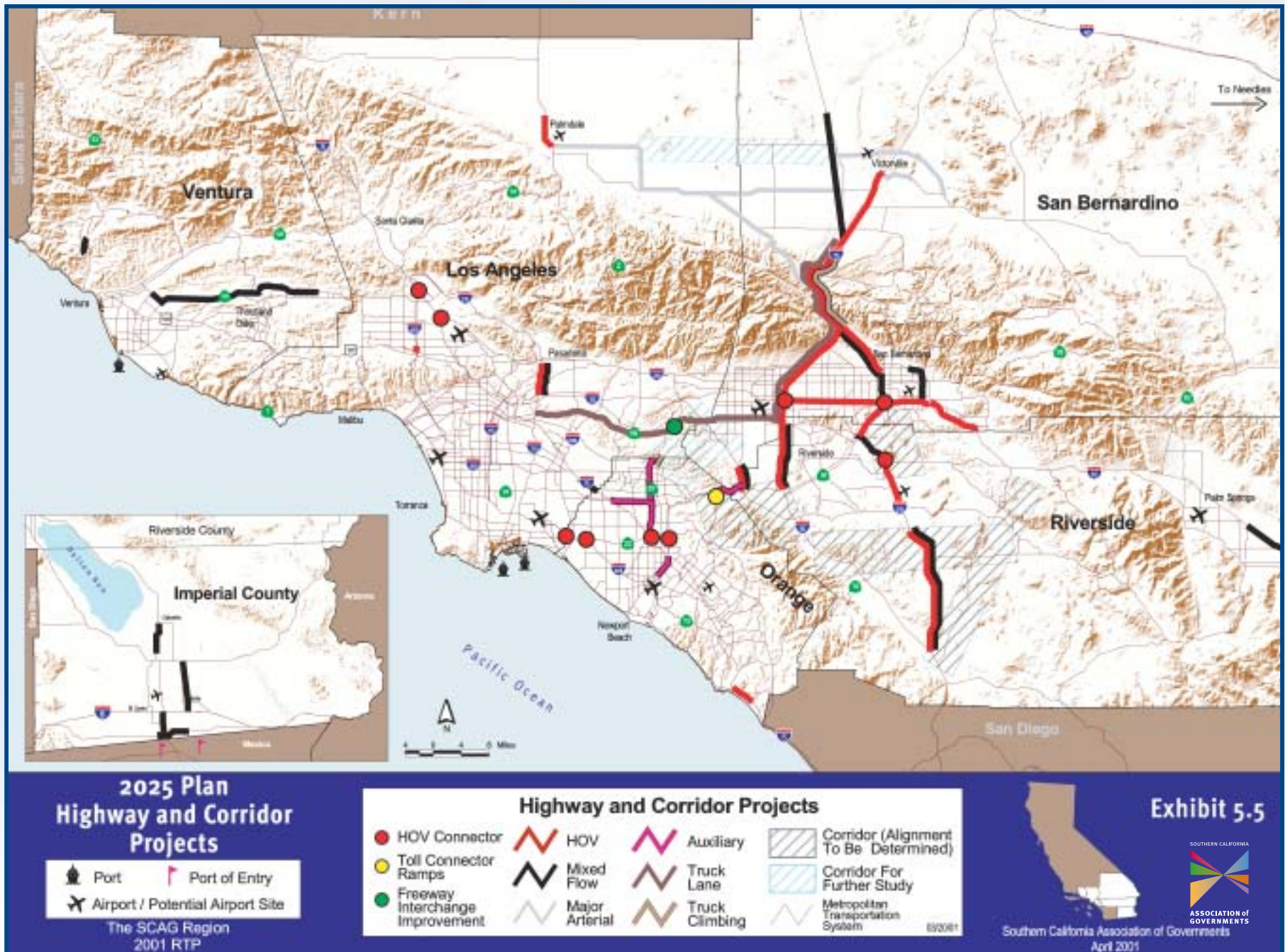
Agencies involved with surface transportation projects needing FHWA and FTA action under the National Environmental Policy Act (NEPA) are expected to sign a memorandum of understanding (MOU) in conjunction with Section 404. (The Federal Clean Water Act, Section 404, requires a US Army Corps of Engineers permit for discharge of dredged or fill material into waters of the United States.) Agencies signing this MOU are committed to integrating NEPA and Section 404 in their transportation planning, programming and implementation of such projects so as to avoid adverse impacts to waters of the United States and to sensitive, threatened and endangered species therein. SCAG executed such an MOU in December 1993 between various local, regional, state and federal agencies, which will be followed vis a vis any proposed toll roads or any other projects covered under Section 404.

CETAP is one part of a three-part planning and implementation program called the Riverside County Integrated Project (RCIP), being undertaken by the County of Riverside and the Riverside County Transportation Commission (RCTC). The other two parts are the developing of a Multi-Species Habitat Conservation Plan (MSHCP) and a new county General Plan. The CETAP is designed to address a comprehensive and interrelated analysis of transportation needs, environmental considerations and land-use options. A central purpose of the CETAP process in Riverside County is to examine the need and opportunities for the development of new or expanded transportation corridors in western Riverside County.

Strategic Arterial Improvements/Smart Street Improvements

Arterial roads account for over 65 percent of the total road network and already carry over 50 percent of total traffic. As it becomes more difficult to add lanes to existing freeways or build new freeways, maximizing the potential capacity of arterials becomes an attractive option to increase overall system capacity in already-developed areas. The Strategic Arterial Improvement concept could involve a combination of widening, signal prioritization and other Intelligent Transportation Systems (ITS) deployment and grade separation at critically high-volume intersections to enhance the flow speed and capacity of the arterial. Such improvements could increase capacity of an arterial facility by as much as 50 percent at a relatively modest cost of \$3 to \$5 million per mile. A number of arterial corridors have been identified for such improvements in the proposed Plan, located mostly in Orange and Riverside counties.

2025 Plan Highway and Corridor Projects



The following table provides a list of Smart Street Improvements included in the 2001 RTP beyond the Baseline.
Table 5.6

SMART STREET PROJECTS			
Project	Implementation Schedule	County	Project Development Requirement/Status
SR-133 Laguna Canyon Rd	2010	Orange	Feasibility Study Needed
Adams Ave	2010	Orange	Feasibility Study Needed
Bolsa Ave/First St	2010	Orange	Feasibility Study Needed
Crown Valley Pkwy	2010	Orange	Feasibility Study Needed
El Toro Rd	2010	Orange	Feasibility Study Needed
Harbor Blvd	2010	Orange	Feasibility Study Needed
Irvine Blvd/Trabuco Rd	2010	Orange	Feasibility Study Needed
Jamboree Rd	2010	Orange	Feasibility Study Needed
Newport Blvd	2010	Orange	Feasibility Study Needed
Orangethorpe Ave	2010	Orange	Feasibility Study Needed
Pacific Coast Hwy	2010	Orange	Feasibility Study Needed
Tustin Ave/Rose Dr	2010	Orange	Feasibility Study Needed
Valley View St	2010	Orange	Feasibility Study Needed
Warner Ave	2010	Orange	Feasibility Study Needed
Hamner Ave/Main St	2015	Riverside	Feasibility Study Needed
Limonite Ave/Rubidoux Blvd	2020	Riverside	Feasibility Study Needed
Magnolia Ave/Main St	2015	Riverside	Feasibility Study Needed

The total investment proposed for Smart Street improvements is \$390 million.

Arterial Improvements

In addition to the specific arterial improvements identified under the Smart Street Improvement Program, this Plan proposes a significant increase in funding for arterial improvements and capacity enhancements (see Table 5.7). Even with the increased funding, the total cost of the arterial improvements identified by the subregions far exceeds available funds.

A complete list of eligible arterial improvements is contained in the Technical Appendix. For implementation purposes, the implementing agencies will have the discretion to prioritize arterial improvements from this list based on performance criteria, to the extent that the allocated funding is available. For the purposes of evaluating the performance of the 2001 RTP as a constrained multi-modal system, arterial improvements were used within the available funding capacity as identified in the Plan.

Maintaining and Optimizing the Existing System (Operations and Maintenance)

With the current backlog of highway and arterial maintenance and the pavement deterioration that goes with an aging roadway system, costs will increase dramatically through the RTP horizon year to keep the highway system operational. The 2001 RTP identifies additional funds, principally for arterials, to minimize roadway and bridge decay. Recent studies

Table 5.7

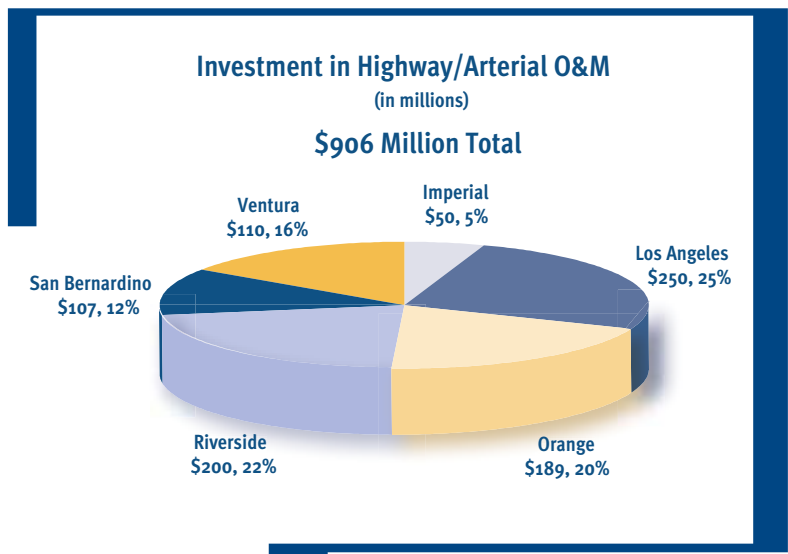
INVESTMENT IN ARTERIALS (IN MILLIONS)	
County	Investment
Imperial	\$194
Los Angeles	\$488
Orange	\$565
Riverside	\$400
San Bernardino	\$607
Ventura	\$135
Regional Total	\$2,389

have also identified an increased cost to drivers as under-maintained roadways degrade tires and shock absorbers, creating wear and tear on engines and connections throughout a vehicle. Providing additional funding to improve pavement conditions before roadbed deterioration requires full rehabilitation would result in substantial maintenance savings to the Region.

Preliminary analysis indicates that investment in proper ongoing maintenance would pay dividends of more than triple the cost. The funding estimates for the 2001 RTP call for a \$63 billion investment in operations and maintenance of the existing system (including transit) and the Baseline projects, which is a \$25 billion increase over the 1998 RTP. Additional O&M funding, beyond maintaining the existing system in the Plan, could also include signifi-

cant improvements such as signal replacements and upgrades, traffic detection improvements, integration and computer control of signal systems, optimization of turning movements and other means of maintaining or enhancing operations of the existing system, as prioritized by the implementing agencies. Additional O&M funding is summarized by each county in Figure 5.6.

Figure 5.6



Soundwalls

Soundwalls is a regional issue associated primarily with freeway improvements. Federal and state laws require construction of noise barriers along freeways under the Community Noise Abatement Program and as part of new freeway

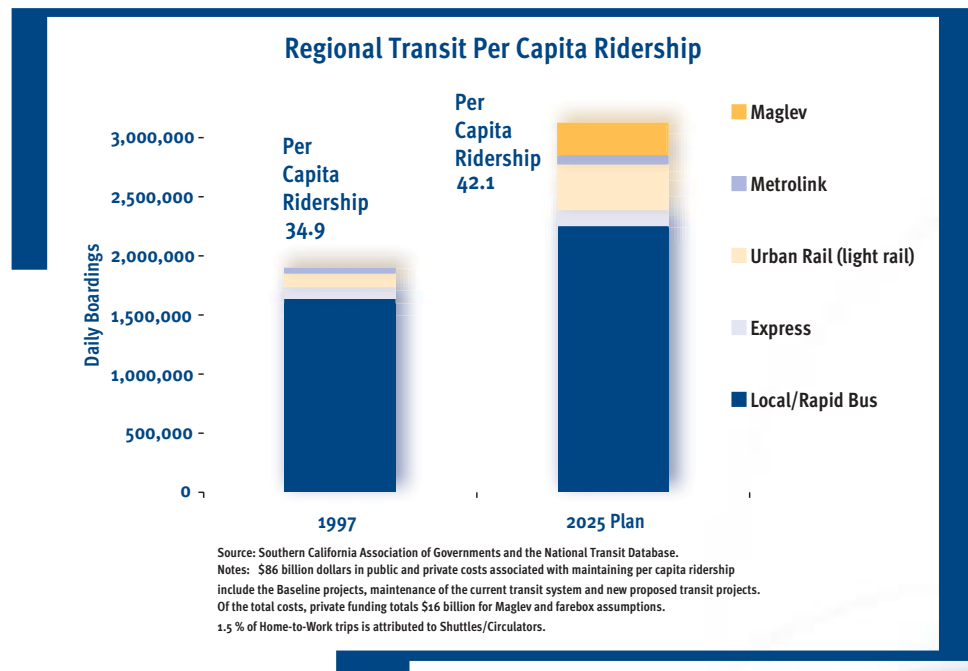
construction projects and freeway widening /capacity enhancement projects on existing freeways. Although a separate funding category for soundwalls is not proposed in the 2001 RTP, the Plan acknowledges the need. All funding needs identified for freeway expansions and improvements include costs for retrofit soundwalls.

REGIONAL TRANSIT

The primary focus of the 1998 RTP's transit program was the cost and delivery of bus service. Smart Shuttles were seen as the solution to these cost /delivery issues, but it has since been recognized that these estimates were overly optimized and applications somewhat limited. However, several fundamental transit policy questions warrant future research and analysis:

- ▶ How should this Region continue to fund transit services?
- ▶ Should the primary focus of regional transit be to provide a “social safety net” level of service?
- ▶ Would other transit investment strategies be more cost-effective and provide better service quality?
- ▶ Should these strategies be pursued if implementation would require changing the way transit funding is allocated and/or require significant changes to the existing institutional structures that fund, deliver and operate transit services?
- ▶ Should the Southern California Region adopt a single alternative fuel standard for transit vehicles?

Figure 5.7



SCAG's Transportation and Communications Committee (TCC) was presented with ridership scenarios developed by the Regional Transit Task Force that would either work towards doubling transit ridership or maintaining the 1997 per capita ridership level. TCC adopted, as a goal, to maintain 1997 per capita ridership levels. This equates to 34.9 transit

trips per person per year. The SCAG Region's population is projected to increase by 40 percent by 2025. This would equal approximately 800 million new annual transit trips in the Region (see Figure 5.7).

To implement the 1997 per capita maintenance scenario, approximately 8,000 transit vehicles, new and replacement, would need to be purchased over the Plan period. The Task Force realized, however, that increasing the regional transit fleet alone will not be successful, is not cost-effective and would not improve overall performance in and of itself. Transit enhancement actions, in coordination with growth and development, will improve both system performance and person access.

Implementation of these complementary actions on selected transit corridors, adopted by the Transit Corridor Task Force and /or submitted by the County Transportation Commissions, could significantly increase regional transit ridership. In some cases, these enhancements alone could be implemented for little or no cost (capital or operating) and improve transit service capacity by as much as 15 percent. Current examples can be found on the Wilshire and Ventura Boulevard Rapid Bus demonstration projects. During July of 2000, as a result of new rapid bus routes, Metro Bus ridership reached its highest point in more than six years, averaging 1,253,931 boarding patrons, compared to 1,041,045 carried a year earlier.

Regional Transit Investments

Public transportation services comprise a major portion of the Regional Mobility Strategy. The goal of public transportation services is to provide an attractive alternative to the use of a single occupant automobile for discretionary riders and to provide needed transportation to people who do not own or operate cars. Public transportation strategies and programs have been developed with these goals in mind.

Table 5.8

BASELINE TRANSIT CORRIDOR PROJECTS				
County	Corridor	Project Limits	Description	Completion Schedule
Los Angeles	Wilshire Blvd	Santa Monica to Montebello	Rapid Bus/Busway Hybrid	2005
	Ventura Blvd	Warner Center to Universal Station	Rapid Bus	2001*
	Exposition	Downtown LA to Santa Monica	Light Rail/ Busway Hybrid	2010
	Pasadena Line	Downtown LA to Sierra Madre	Light Rail	2003
	Eastside	Union Station to Beverly/Atlantic	Light Rail	2006
	San Fernando Valley East/West	N. Hollywood Red Line Station to Warner Center	Busway	2005
OC	CenterLine	Fullerton Transp. Center to Irvine Transp. Center	Light Rail	2010
RV	San Jacinto Commuter Rail	12th & Vine to 4th & D St (Riverside to Perris)	Commuter Rail	2010
SB	Redlands	4th St/Vernon to Grove/Central	Rail Technology TBD	2010

*A previous demonstration project

Table 5.9

CONSTRAINED TRANSIT CORRIDOR PROJECTS				
County	Corridor	Project Limits	Description	Completion Schedule
L o s A n g e l e s	Alvarado	Hill/King to Alvarado/Sunset	Rapid Bus	2010
	Atlantic	Del Mar to Long Beach Blue Line	Rapid Bus	2010
	Avalon	Avalon/El Segundo to Vermont Red Line	Rapid Bus	2010
	Century Blvd	96th/Vicksburg to Rives/Imperial Hwy	Rapid Bus	2010
	Crenshaw-Rossmore	Hollywood/Vine to Wilshire	Rapid Bus	2010
	Crenshaw Corridor	Wilshire/Rossmore to Crenshaw/Green Line	Fixed Guideway/Busway	2025
	Florence	La Tijera/Manchester to Florence/Garfield	Rapid Bus	2010
	Garvey	Hope/11th to Santa Anita/Romona	Rapid Bus	2010
	Hawthorne	Crenshaw/Florence to Hawthorne/Sepulveda	Rapid Bus	2010
	Hollywood-Fairfax	Fairfax/Washington to Vermont/Fountain	Rapid Bus	2010
	Hollywood-Pasadena	Hollywood/Highland Red Line to Colorado/Hill	Rapid Bus	2010
	Long Beach Blvd.	4th/Hill to Artesia Blue Line Station	Rapid Bus	2010
	Roscoe	Topanga Cyn/Victory to Universal City Red Line Station	Rapid Bus	2010
	San Fernando Rd	Union Station to Sylmar Metrolink	Rapid Bus	2010
	Santa Monica	Union Station to Santa Monica	Rapid Bus	2010
	Soto	Long Beach/Lynwood to Valley Rd/Soto	Rapid Bus	2010
	Van Nuys	Foothill to Ventura	Rapid Bus	2010
	Venice & Pico/East 1st	Santa Monica/Venice to East LA	Rapid Bus	2010
	Vermont	Vermont/Wilshire Red Line to Green Line	Rapid Bus	2010
	Vernon-La Cienega	San Vicente/Santa Monica to Florence/Wilcox	Rapid Bus	2010
	West Third	Century City to Downtown LA	Rapid Bus	2010
	Western	Western/Hollywood Red Line to Green Line	Rapid Bus	2010
	Green Line Extension	Mariposa/Nash to Century/Sepulveda (LAX Term.)	Light Rail	2010
	San Fernando Valley North/South Corridor	possible alignment follows Van Nuys Rapid Bus	Fixed Guideway/Busway	2025
O r a n g e	Garden Grove Blvd	Valley View/Chapman to Glassell/Chapman	Rapid Bus	2010
	Katella Ave	Channel/7th to Harbor/Katella	Rapid Bus	2010
	Bolsa Ave/1st St	Bolsa Chica/Bolsa Ave to 1st/Newport	Rapid Bus	2010
	Harbor Blvd	19th to Commonwealth	Rapid Bus	2010
	Bristol St	Jamboree/Bristol to State College/Birch	Rapid Bus	2010
	Main St	Culver to Taft	Rapid Bus	2010
R I V	San Jacinto Commuter Rail	4th & D St to 7th & State St	Commuter Rail	2020
	Intercity Rail	Colton (SB Co.) to Palm Springs	Interregional Rail (AMTRAK)	2015

With the Baseline projects, as well as the constrained corridors, the maintenance of the 1997 per capita ridership goal can be achieved. Several strategies will pave the way over the Plan period. Strategies include a significant increase in service availability, the use of articulated buses and shifting some service from the under-performing lines to the heavily traveled corridors. Daily boardings will double with the implementation of Metrolink's Long-Range Capital Plan and there will be expansion of urban rail in Los Angeles County. New rapid bus lines will be implemented on heavily traveled corridors and many bus lines will be added or restructured to feed into the existing and proposed urban and commuter rail system. In 2025, some of the rapid bus lines in Los Angeles County will be upgraded to busway corridors, also known as Bus Rapid Transit.

The financially constrained Rapid Bus corridors in Tables 5.8 and 5.9 are designed to connect major activity centers and create a multi-modal system that serves Southern California residents. Several corridors link current bus routes to existing Metrolink stations and urban rail lines. Rapid Bus service consists of a simple route layout, frequent service, less frequent stops, low-level buses for fast boarding and exiting, color-coded buses and stops as well as signal priority at intersections. Service for these corridors in 2025 will be every 3 to 5 minutes during peak periods and every 10 minutes during off-peak periods and weekends. In addition to the re-routing of bus lines, the deployment of shuttles and circulators would also feed into the current transit network. These circulators can be very effective when deployed in certain niche markets.

Future studies are planned to examine new transit corridors and the feasibility of extending existing ones. The Eastside light rail corridor would be extended to Norwalk and Whittier Boulevard. The Pasadena Blue Line would extend out to the Claremont Metrolink Station, located at Central and Arrow. In addition to these extensions, a study of the Pacific Electric right-of-way, which begins in Downtown Los Angeles and terminates in Santa Ana, would be conducted.

Exhibit 5.6 depicts what the fixed transit corridor network would look like in the SCAG Region in the year 2025.

Commuter Rail

SCRRA has developed a \$1.1 billion-dollar long-range capital improvement plan that when fully implemented will effectively double the Metrolink System's passenger carrying capacity. The long-range capital plan includes selective double tracking on critical route segments, switching and signal improvements, communication system improvements, new stations and enhancements to existing stations. Plans also include future service expansion on the Redlands and San Jacinto branch lines. At this time, a specific mode has not been chosen for the Redlands corridor, but these lines will feed into the current commuter rail system.

Shuttles and Circulators

Third tier transit services, including Smart Shuttles, community based transit system and new private services could potentially support an additional 20 percent of transit ridership above those levels currently modeled and validated.

2025 Plan Transit Corridor System



Third tier systems currently operating appear to be carrying a significant volume of passengers. An analysis of third tier community-based transit systems is to be carried out by SCAG by the end of FY 2000/01. This may yield additional information pertaining to the likely effectiveness of such systems.

Technology will improve the performance and reliability of Smart Shuttles and community-based transit services. Enhanced customer awareness will also improve Smart Shuttle effectiveness and encourage more commuters to shift to third tier transit services. However, to increase service levels and institute new services in high growth areas, many of these services will require additional resources. This raises significant policy questions about whether and how such resources can be generated and allocated.

Over the last ten years, public transportation services provided by the private sector have grown significantly. These include a variety of market niche services (e.g., airports, Metrolink, livery, special needs services, urban rail stations) and contract services (e.g., employer shuttles, shopper shuttles, social services transportation and community-based transit). The market for these niche services is estimated to expand at least proportionally to the population and associated demographic changes over the next 25 years.

Transit Centers

Balanced local land-use and transportation policies can reduce auto travel and support more pedestrian, mixed-use and transit-oriented developments throughout the Region. Transit provides an alternative means of personal mobility, increases capacity when needed and contributes to the quality of life in metropolitan communities. Transit facilities, services and centers are best when they are customer-friendly, community-oriented and well designed. A network of transit-based centers and corridors, supported by in-fill development, maximizes the use of existing infrastructure, supports transit ridership, reduces automobile air pollution and preserves natural areas.

To further encourage the use of transit and ridesharing, new transit centers and park-and-ride facilities would be constructed in areas that provide access to the freeway HOV network, transit corridors and Express Bus origins. Existing transit centers may be upgraded for multi-modal uses that support restructured transit services. Possible investments, based on performance over the 2001 RTP period, are estimated to cost \$200 million.



The Program

Transit represents a vital component of our transportation network, regardless of the policy decisions and directions that are adopted. In order to remain so, transit operators must be able to develop and maintain services that attract and retain users.

Transit service development philosophy should focus on services that are:

- ▶ Available for use when the customers want to use them
- ▶ Accessible by customers without major obstacles (physical, institutional or informational)
- ▶ Planned from the customer's point of view

Failure to meet the transit ridership goals, to at least maintain current per capita ridership, would, over the life of the Plan, add to increased congestion and further deterioration of air quality. More importantly, the viability of transit, as more than a social safety net, would be questioned, especially given the massive financial investments the Region has made in transit.

The following actions, when implemented, will provide an attractive alternative to single occupancy vehicle trips and help achieve regional goals by reducing congestion and delays. The Task Force identified actions to enhance transit service in several areas as follows:

Transit Service Management Actions:

- ▶ Transit schedule adherence needs attention. Buses should arrive within 5 minutes of the published time. Where this is not practical, realistic schedules should be published.
- ▶ Bus stops should be physically adequate to accommodate passenger access and egress, as well as minimize auto/bus conflicts (even if this means removal of parking), and should be free of pedestrian impediments.
- ▶ Regional transit vehicles should be equipped with Intelligent Transportation System (ITS) technology where this adds to on-time reliability and/or operating efficiencies.
- ▶ Bus priority service (transitway or rapid bus) should be implemented concurrently with smart street technology.
- ▶ On corridors or arterials that are used by multiple operators, operators should consider coordinated ticketing to enable "open door" policies.
- ▶ Transit corridor services should support the urban rail and commuter rail systems.
- ▶ Local transit services should be restructured or re-deployed to prioritize collector and distributor functions to support transit corridors and rail systems.
- ▶ Fare structures should be coordinated when possible to create a seamless regional transit network.
- ▶ User-side subsidies should be implemented where service-side is too expensive or impractical.

Transit Demand Management Actions:

- ▶ Differentiated transit fare (e.g., one-half fare off-peak) should be considered region-wide.
- ▶ Transfers should be free.
- ▶ Employer-based incentives should be encouraged.
- ▶ Transit should be aggressively marketed where it offers a viable alternative to automobile use.

Growth Management Actions:

- ▶ Transit mitigation actions that are mandatory parts of the planning, permitting and zoning process. Proposed mitigation efforts shall include transit providers.
- ▶ Working with agencies that are able to create transit mitigation policies and enforce them—i.e., the California Environmental Quality Act could be amended to require new development to include transit mitigation that equals or exceeds the area's mode split.
- ▶ Encourage communities with transit supportive densities.

Institutional Actions:

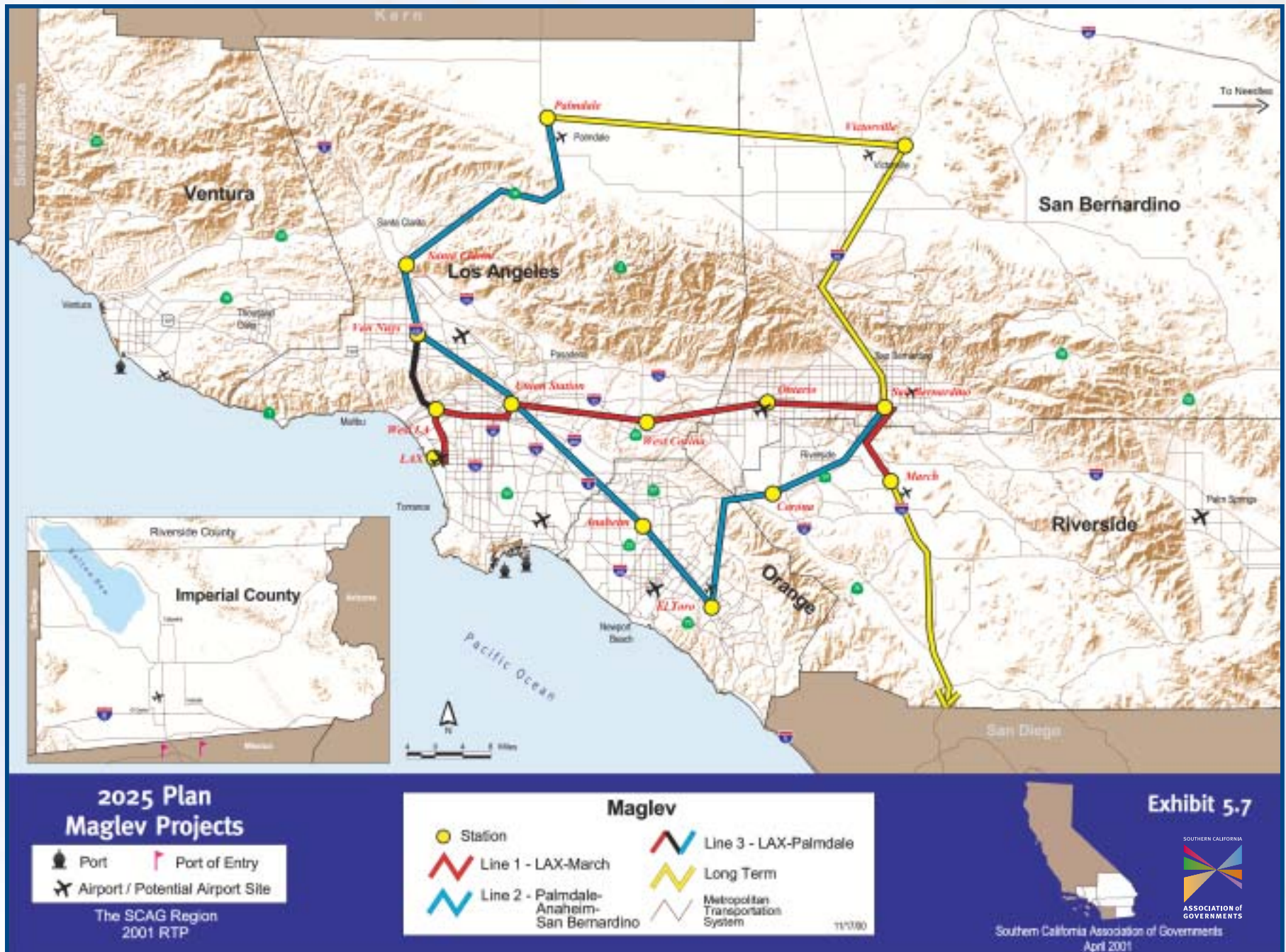
- ▶ Transit providers should support the extension of existing supplemental sales taxes and development of revenue from market-based measures.
- ▶ Regional transit providers and municipal operators should be required to coordinate transit services and fare systems where jurisdictional boundaries are crossed.
- ▶ New or expanded service should be prioritized to support existing infrastructures.
- ▶ New or expanded service should be designed to meet operational objectives.
- ▶ Local transit investments should leverage federal funds to the greatest extent possible.
- ▶ Support a regional transit forum to monitor transit usage and further analyze an approach and implementation schedule to achieve regional goals like maintaining per capita ridership.

MAGLEV SYSTEM

The Intra-Regional High Speed Rail Maglev using magnetic levitation (Maglev) technology would connect major activity and transportation centers in Los Angeles, Orange, Riverside and San Bernardino Counties. The system would be comprised of one line connecting LAX to March Inland Port, and is anticipated to be implemented by private sector in the year 2010. However, the year 2010 conformity findings of the 2001 RTP were based on not taking any VMT and emission reduction benefits from implementation of this Maglev project. The year 2020 conformity finding was benefited from implementation of LAX-March Maglev project (VMT and emission benefits were included in the year 2020 for conformity finding of the 2001 RTP in SCAB). In 2025, the system would be completed with the three remaining lines, Palmdale to LAX, Palmdale to the Los Angeles Union Passenger Terminal (LAUPT) and LAUPT to Orange County and San Bernardino. The Maglev program also envisions longer-term connections to San Diego, a connection between San Bernardino and Palmdale via a high desert alignment and interlining with the proposed California High-Speed Rail System. If the State is successful at adopting a high-speed rail system, SCAG's Regional Council will support the north corridor to Palmdale and the south inland corridor.

On June 30, 2000, SCAG submitted the completed LAX to March Inland Port Maglev Project Description, which demonstrated that an intra-regional Maglev system could generate sufficient ridership and revenue to cover all capital, construction, operational and debt-retirement costs to the Federal Railroad Administration (FRA).

2025 Plan Maglev Projects



When fully deployed, the Intra-Regional Maglev System could create the basis for a 50-year regional surface transportation system that could offer a functional and practical transportation alternative as significant to this Region as the freeway network developed during the last 50 years.

The Maglev Project Description document further demonstrated that the Intra-Regional System could be constructed and deployed through a public-private partnership structure administered through a public agency, a joint powers authority (JPA) or a public non-profit (PNP) format, using a number of innovative and traditional funding mechanisms. Anticipated actions in the short term include support for feasibility studies on the corridors that connect the Los Angeles Union Passenger Terminal (LAUPT) to Orange County and Orange County to the Inland Empire. A separate multi-modal study has been initiated on the I-405 Corridor to examine and evaluate a connection between LAX, the City of Long Beach/Long Beach Airport and a southern Orange County terminus at the John Wayne Airport, the Proposed El Toro Airport or the OCTA Transit Facility in Irvine. The future of the Maglev effort will depend largely on two factors: private sector interest in financing the system and how the system performs based on SCAG's performance criteria.

ACTION—Support additional feasibility and deployment studies in the Region.

ACTION—Work with private consortia to develop a public-private partnership structure.

The Maglev project is a transit strategy that will increase accessibility to the Region's major activity centers and provide congestion relief. Between the 2001 RTP and the 2004 RTP, any progress in the implementation of this project (LAX-March Airport Segment), as well as those activities that under the federal and state laws require programming, will be reflected in the respective Regional Transportation Improvements Programs (RTIPs).

Milestone	Action(s)	Year(s)
1.	SCAG Develops Business/Financial Plan	2001-02
2.	SCAG Implements Public/Private Partnership	2001-02
3.	Environmental Document(s)	2001-03
4.	Preliminary Engineering	2003-04
5.	Final Engineering	2004-05
6.	Construct Phase 1 Segments (Ontario to Covina) (Covina to Union Station)	2005-07
7.	Construct Phase 2 Segments (Ontario to March IP) (Union Station to LAX)	2007-10

GOODS MOVEMENT – PORTS, RAIL AND TRUCKS

The SCAG Region is the nation's most important port region, with three maritime ports serving the Pacific Rim, home to major U.S. trading partners. The amount of cargo brought into the Region by these seaports and by airports is expected to greatly increase over the next 25 years as international trade volumes triple. At the same time, total Goods Movement traffic is expected to grow more than 80 percent. Many of these goods are manufactured in the Region, as Southern California is the nation's second largest metropolitan manufacturing area. In fact, trade, transportation and manufacturing support approximately 45 percent of the Region's employment.

By 2025, airport, highway and rail capacity to handle this increased traffic will be severely strained. Rail use, even with the Alameda Corridor improvements, will be approaching capacity limits. Most of the Region's freeways and local arterials will be subject to severe delays caused, in part, by increased truck traffic—increasing shipment time and costs and reducing the reliability of motor freight. Trucks are expected to carry the majority of goods traveling less than 800 miles. There is almost no capacity to deal with this increase. The Region will be hard pressed to maintain the existing levels of moving goods, let alone handle the expected increases. Without an ability to move goods in 2025, the vitality of the Southern California economy will be impaired. SCAG forecasts that by 2025, some freeways will be severely impacted by trucks. The number of trucks is already as high as 36,000 per day on some freeways and may well exceed 80,000 per day on certain corridors in the year 2025.

Goods Movement Investments

The Goods Movement Advisory Committee (GMAC) and the Truck Lane Task Force addressed this area of the Plan. The GMAC has adopted the following non-prioritized list of projects, focus areas and needed studies:

- ▶ Truck Lanes
- ▶ Regional Railroad Grade Crossing Improvements
- ▶ Alameda Corridor
- ▶ Alameda Corridor East and Orangethorpe Corridor
- ▶ Southwest Passage
- ▶ Subregional Freight Studies
- ▶ Improvements in Freight Movement Productivity (Extended Hours of Delivery)
- ▶ Transportation Funding for Freight Movement
- ▶ Aviation: Air Cargo and Ground Access Issues
- ▶ NAFTA
- ▶ The I-710 Gap Closure
- ▶ 2000 Air Quality Management Plan/Heavy Duty Diesel Emissions and Mitigation
- ▶ Clean Fuel Technologies for Goods Movement
- ▶ Regional/Subregional Equity in Funding/Project Development

2025 Plan Goods Movement Projects



The Goods Movement section of the 2001 RTP primarily addresses recommendations for studies and implementation of projects in the first eight of these areas: truck lanes, railroad grade crossing improvements, the Alameda Corridor, the Alameda Corridor East and Orangethorpe Corridor, the Southwest Passage, subregional freight studies, improved freight productivity and transportation funding for freight movement. The remaining six projects, focus areas and needed studies are also of considerable importance to the Region, but fall under the purview of other SCAG committees and task forces. These are addressed in other sections of this document.

Truck Lanes and Truck Climbing Lanes

Trucks support the Region's manufacturing industry and are essential to the intra-regional distribution of consumer goods. Major freeways that could significantly benefit from separate truck facilities are identified below. Currently, these corridors carry high volumes of truck traffic, which contribute to substantial peak hour delay and unsafe traffic conditions related to the interweaving of trucks and automobiles. The current regional heavy-duty truck volume is estimated to increase by over 60 percent through 2025. In an effort to improve throughput for trucking and to ensure the continued vitality of the Goods Movement sector, SCAG is reviewing design options for truck lanes and truck climbing lanes with Caltrans and Goods Movement stakeholders.

The truck lanes are assumed to be separate lanes constructed along the outside of the freeway with limited direct access to and from arterials. These truck lanes can serve as a system for moving commercial trucks in a more efficient and less congested manner. Truck lanes will be grade separated from existing freeway ramps to minimize conflict between vehicles. Where sufficient right-of-way is not readily available, new mixed-flow or HOV lanes could be placed on aerial structures so that existing lane space could be utilized for additional truck facilities. Tolloed truck lanes are proposed to accommodate two lanes in each direction, which is viewed as the optimal configuration for truck facilities.

Table 5.10

TRUCK LANE PROJECTS			
Project	Implementation Schedule	County	Project Development Requirement/Status
SR-60 (I-710 to San Bernardino County)	2010	Los Angeles	Preliminary Feasibility Study Completed
SR-60 (Los Angeles County to Riverside County)	2010	San Bernardino	Preliminary Feasibility Study Completed
SR-60 (San Bernardino County to I-15)	2010	Riverside	Preliminary Feasibility Study Completed
I-15 (SR-60 to San Bernardino County)	2020	Riverside	Preliminary Feasibility Study to be Started in Calendar Year 2001
I-15 (Riverside County Line to US-395)	2020	San Bernardino	Preliminary Feasibility Study to be Started in Calendar Year 2001

A total of \$3.64 billion in public funding and \$1.62 billion in private funding is proposed.

Table 5.11

TRUCK CLIMBING LANE PROJECTS			
Project	Implementation Schedule	County	Project Development Requirement/Status
I-15 (Devore to Summit)	2010	San Bernardino	PSR Needed
SR-57* (Lambert to Tonner)	2010	Orange	PSR Needed

* The SR-57 truck climbing lane is included in a project to provide auxiliary freeway lanes along SR-57 between SR-22 and the LA County Line, costing \$186 million (not included as part of the truck climbing projects). The truck climbing lane would be in the northbound direction. This project is included in the highway section of the Plan and is shown here for information purposes only.

The estimated total cost of the truck lane projects included in the Plan is \$4.3 billion for the SR-60 truck lanes. Approximately 70 percent or \$3 billion of this cost is assumed to be publicly funded and the remaining \$1.3 billion will be financed privately. Approximately \$700 million in public funding and \$300 million in private funding is allocated for the truck lanes on I-15.

New truck climbing lanes are expected to be of similar design and configuration to the existing truck climbing lane facilities. Truck climbing lanes are additional lanes located on the outside of the freeway in an uphill direction, which permit slower-moving trucks to operate at their own pace without reducing the speed of mixed-flow traffic. This facility category may also include downhill truck descending lanes /escape ramps, although the estimated cost of these lanes is relatively small. In addition to the truck climbing lanes listed on Table 5.11, it should be noted that truck climbing lanes are already programmed in the current RTIP for I-215 in the vicinity of UC Riverside and Box Springs in Riverside County; for I-10 from Ford to Yucaipa Boulevard.; and for I-15 along the Cajon Pass and near Barstow and Baker.

Table 5.12

TRUCK LANE STUDY PROJECTS			
Study	Implementation Schedule	County	Project Development Requirement/Status
I-5 (I-605 to SR-14)	To Be Determined	Los Angeles	Preliminary Feasibility Study Needed
I-5 (SR-14 to SR-126)	To Be Determined	Los Angeles	Preliminary Feasibility Study Needed
I-710 (SR-60 to Port of Long Beach)	To Be Determined	Los Angeles	Preliminary Feasibility Study Needed

The truck lane projects identified above will require a preliminary study to determine the willingness and interest of the private sector to participate in funding (through tolls, user fees or other measures) and at what level.

Preliminary estimates are that the I-710 truck lane project would cost \$1.4 billion and the I-5 truck lane project from I-605 to SR-14 would cost \$3.1 billion (the short segment from SR-14 to SR-126 would cost an additional \$113 million).

Another project that could significantly improve truck traffic is the SR-58 mixed-flow truck route project in San Bernardino County. This would extend from the LA County line to I-15 at an estimated cost of \$208.8 million. This project is included in the highway section of the 2001 RTP.

ACTION—Develop an effective cost-sharing method between public and private sectors for the construction and operation of truck facilities. Maintain an open dialogue on an approach to develop financing that is both adequate and equitable between counties.

ACTION—Develop a truck lane major investment study (MIS). The MIS process, and other means, should be used to evaluate the routes included in the RTP and other potential routes as well.

ACTION—Support the development and construction of dedicated truck lane facilities along freight corridors as a system.

ACTION—Develop criteria and standards for interchanges and ramp access from truck lanes to intermodal facilities to help prioritize projects within a constrained financial base.

Railroad Grade Crossings

Regional rail freight movements often conflict with highway commuter and Goods Movement traffic. With the anticipated increase in port traffic and total train movements of all kinds, substantial additional delay for passenger vehicles and trucks can be expected at grade crossings. To avoid these delays, grade separations carrying arterials under or over rail lines carrying substantial amounts of freight from the ports are recommended along critical routes such as the Alameda Corridor East, including the Los Angeles-Orangethorpe-Riverside rail freight corridor (Orange County Gateway) (see Table 5.13). A regional grade crossing improvement program is under development

Table 5.13

GRADE CROSSING CORRIDOR PROJECTS			
Project	Implementation Schedule	County	Project Development Requirement/Status
Imperial	2020	Imperial	Individual Crossings Studied
Los Angeles (Including Gateway Cities, North Los Angeles County)	2025	Los Angeles	Feasibility Study Completed/ Individual Crossings Studied
Orangethorpe	2010	Orange	Feasibility Study Completed; Further Study Underway as The ONTRAC or Orange County Gateway Corridor
Orange-Olive	2010	Orange	Feasibility Study Completed
Riverside	2025	Riverside	Feasibility Study Completed
San Bernardino	2025	San Bernardino	Feasibility Study Completed

A total of \$1.8 billion in public funds and \$318 million in private funds is proposed.

and will identify the critical grade crossing projects, including grade separations and at-grade crossing safety projects for both commuter and freight rail in the Region. As part of the improvement program, a financing program will be prepared.

ACTION—Support the subregions in obtaining funding for grade crossing studies.

ACTION—Construct grade separations where streets and highways cross regional rail lines. Study the funding mechanisms for grade crossing improvement projects to meet the needs of the entire Region.

ACTION—Recognize the need for additional funding for grade crossing improvement projects to relieve truck and other highway congestion because current program funding needs exceed available public and private funding.



Alameda Corridor

The Alameda Corridor is a 20-mile rail freight corridor from the Ports of Long Beach and Los Angeles to Downtown Los Angeles, comprising railroad capacity (track and signaling) improvements and grade separations of the entire rail line. It includes parallel arterial improvements to expedite truck movements. Improvements along the corridor will cost \$1.9 billion to be funded by the Ports of Long Beach and Los Angeles, federal loans as well as Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ) funds. The 2001 RTP supports the completion of the corridor program to consolidate rail traffic and improve highway truck access.

ACTION—Alameda Corridor Transportation Authority to complete the Alameda freight movement corridor program.

Alameda Corridor East and other Main Line Railroad Corridors

The Union Pacific (UP) Railroad segment of the Alameda Corridor East (ACE) is a 55-mile rail corridor from East Los Angeles to Colton Crossing in San Bernardino County. The estimated cost for grade crossing improvements and separations for 55 grade crossings within LA County, from Downtown Los Angeles to Pomona, is included in the Baseline. The Governor's Traffic Congestion Relief Program includes additional funding for the Alameda Corridor East in the San Gabriel Valley in Los Angeles County. In addition, TEA-21 funds have been earmarked for this program. A full funding program including local, state, federal and private resources is under development.

A continuation of the UP segment of the ACE from Pomona to Colton Crossing in San Bernardino County has been studied by the San Bernardino Associated Governments (SANBAG) as part of a larger grade crossing study in that county. The Governor's Traffic Congestion Relief Program specifies that railroad to railroad grade separation at Colton Crossing be constructed to eliminate conflicts between railroad passenger and freight traffic where the east-west UP Alhambra/Yuma Line crosses the north-south BNSF San Bernardino Subdivision (also used by UP).



The Orangethorpe Corridor component of the ACE comprises 15 grade crossings extending about seven miles across northern Orange County, along the Burlington Northern-Santa Fe Railroad. It is part of a much longer rail corridor (about 60 miles) from Downtown Los Angeles to Colton Crossing via Riverside. The Orangethorpe Corridor is partially funded in the Baseline. Further study of potential track lowering through Placentia is currently under way as part of the Orange County Gateway Project, now called the Orange-North America Trade Rail Access Corridor (ONTRAC). The Governor's Traffic Congestion Relief Program includes some of the funding for the Orangethorpe Corridor. Riverside County has recently completed a study of the ACE through Riverside and Colton Crossing.

Other ACE studies of the railroad main line corridors in San Bernardino and Riverside Counties have also evaluated grade crossings along the UP Yuma Main Line extending east from Colton to Indio (in the Coachella Valley) and the BNSF/UP Cajon Line north from Colton. The Gateway Cities Grade Crossing Program would improve railroad-highway crossings in the heavily industrialized area north of the Ports of Los Angeles and Long Beach. Finally, improvements will be made along the Orange-Olive corridors in Orange County, between Fullerton/Placentia and the San Diego County line.

Improvements to the main line railroad corridors will extend many of the benefits of the Alameda Corridor eastward, providing a conduit for Pacific Rim trade. These corridor improvement projects will reduce delay to cars and trucks as well as lower noise and improve air quality. They will also improve safety at all crossings that are upgraded—reducing the potential for accidents and possible disruptions of the flow of international and domestic rail freight to the rest of the nation.

ACTION—Conduct a multi-county study of the grade crossing improvement needs for the Alameda Corridor East and the Los Angeles-Orange County-Riverside main line rail.

Railroad Main Line Productivity

Complementing the project to improve grade crossings between Los Angeles and the Inland Empire on the Union Pacific and Burlington Northern-Santa Fe main lines, is a need to evaluate railroad capacity on these lines to enhance the ability to move both passengers and freight with a minimum of delay. A corridor management plan should be

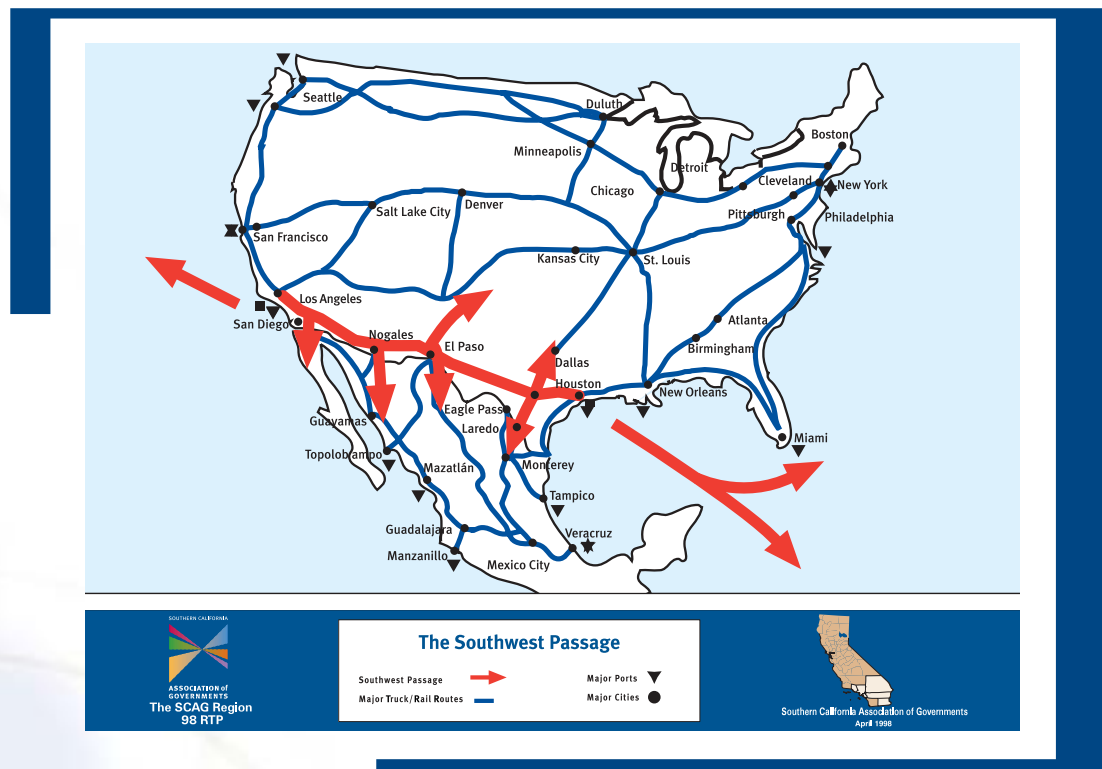
developed for these east-west railroad lines between the Los Angeles Downtown rail yards (at the north end of the Alameda Corridor) and Colton Crossing to maintain or improve current levels of reliability and train speeds. This would make it possible to maintain the competitiveness of the rail mode for long-haul, time-sensitive freight shipments, including marine port and domestic traffic, while simultaneously mitigating environmental impacts on communities traversed by the lines. Public-private partnerships should be considered when making facility improvements.

ACTION—Conduct a comprehensive study of railroad east-west main line infrastructure to provide enhanced capacity and reliability of rail freight operations linking the ports and Downtown rail yards with the Inland Empire and the rest of the country, while maintaining essential passenger services on the same lines and mitigating environmental impacts.

Southwest Passage

Connecting the Region's ports with the rest of the country is essential for our continued economic competitiveness. With international trade being one of the fastest growing segments of the economy, the SCAG Region is well positioned to take advantage of the trade possibilities, beginning with Pacific Rim and NAFTA countries. Development of the Southwest Passage, which extends from all three ports eastward generally along the I-10 and I-8 corridors toward Texas, is designed to promote freight movement and economic growth. Cooperation among our southwestern neighbor states, MPOs, COGs and the private sector is critical to the success of this project.

Figure 5.8



ACTION—Support development of the Southwest Passage with a series of briefings to federal and state legislatures; creation of an association of southwest states, MPOs, COGs and private stakeholders; and inclusion and funding of the Southwest Passage in the TEA-21 as a study.

Hueneme, Long Beach and Los Angeles Seaports

International and domestic cargo volumes are forecasted to triple by 2025 for these three regional seaports, whose commerce is dependent on existing and planned landside transportation links. The ports will spend an estimated \$6 billion on their own facilities and on rail and highway access over the next 25 years. The San Pedro Bay Ports (Los Angeles and Long Beach) have an ambitious program for transportation infrastructure improvements, including arterial widening to serve truck traffic, freeway ramp improvements, railroad grade separations, rail yard expansion and ITS improvements in addition to landfill projects and new and reconfigured terminals.

Further, the Port of Hueneme is implementing \$20 million in improvements on the recently conveyed 33-acre US Naval Civil Engineering Laboratory and on public streets with access to the port. Collectively, these investments by the three regional ports are intended to enable a tripling of cargo volumes by 2025 as well as position the SCAG Region as the primary load center for ocean cargo in the Western Hemisphere.

ACTION—Support improvements at the seaports and local streets, arterials and rail connections as shown in the respective port plans. (These expenditures are funded from maritime sources, which are not included in the Regional Checkbook.)

ACTION—Support roadway and rail access investments that improve access to the regional seaports of Port Hueneme, Long Beach and Los Angeles.

ACTION—Support the subregions in obtaining funding for port area landside access studies.

Inland Ports and Inland Intermodal Terminals

Growing international trade volumes through the San Pedro Bay ports will increase the demand for land located immediately behind the docks for the purpose of sorting and storing marine containers. Some of these activities can be carried out on lower-valued/easily available land in the Inland Empire. An alternative to the high-demand land that is needed could be the creation of an inland port facility or facilities with shuttle trains that convey marine containers to sorting centers for reassembly into line-haul trans for transport to the Middle West or Gulf Coast. Further, shuttle trains might carry containers bound for points in the Inland Empire as a substitute for truck drayage, alleviating some truck traffic on east-west freeways or even avoiding the need for an SR-60 truck lane project.

There is also probably a need for one or more new joint-use inland intermodal terminals to directly load domestic container and trailer loads onto flatcars in the Inland Empire. This would reduce unnecessary truck movements between inland points and Downtown rail yards, and reduce empty train miles for some transcontinental freight movements that could originate in the Inland Empire instead of Downtown Los Angeles. Such terminals could be combined with inland port operations, providing a magnet for the growth of light industry, warehousing, forwarding and load consolidation activities as well as customs inspection. This can possibly be combined with free trade or enterprise zones. An example of an inland domestic rail intermodal terminal is the proposed Morongo Intermodal Transload and Industrial Center (MITIC) project in the Cabazon area of Riverside County.

A related issue is the need to reduce the movement of empty containers between the ports and nearby or regional shippers and warehouses. This movement results in additional freeway congestion and delays at port terminals. Computerized container matching/dispatching systems to permit unloaded import containers to be cleaned and dispatched directly to load points for the export move, could help reduce empty container moves and reduction of related truck emissions.

Studies should be conducted on all of these issues relating to the logistics chains involved in long - and short-haul marine container movements to determine their benefits, marketability, operational feasibility and funding and financial requirements. It is anticipated that, to a large extent, the private sector would develop and operate such facilities as inland ports and intermodal terminals.

ACTION—Determine the feasibility of inland port and new inland intermodal terminal operations, including several alternative container handling and rail haul options to provide more efficient and reliable truck and intermodal freight movements, less congestion, lower emissions and enhanced Inland Empire industrial development potential.

ACTION—Conduct a feasibility study of the potential to reduce the movement of empty marine containers through the use of an Internet-based container matching service in order to reduce freeway congestion and emissions.

Air Cargo

For a discussion of aviation scenarios considered and the final aviation plan included in the 2001 RTP, please see the Aviation section of this RTP. SCAG performed a demand analysis of air cargo based on the same methodology used for calculating regional air passenger demand, but with cargo-specific factors and variables. The results are listed in the table below.

Table 5.14

AIR CARGO GROWTH DISTRIBUTION BETWEEN AIRPORTS IN MILLIONS OF AIR CARGO TONS (MAT) IN 2025																
Scenario		BUR	ELT	SNA	LAX	LGB	MAR	ONT	PSP	PMD	MUG	SBD	SCI	Incent	HSR	Totals
1997	MAT	0.04		0.02	2.05	0.03	n/a	0.47	0	0	n/a	n/a	n/a	n/a	n/a	2.6
2025 Plan	MAT	0.07	1.69	0.03	2.98	0.06	1.08	2.25	0.02	0.12	n/a	0.88	0.32	Yes	Yes	9.5

Bur = Burbank
MAR = March Global Port
SBD = San Bernardino Int'l

ELT = El Toro
ONT = Ontario
SCI = Southern California Logistics

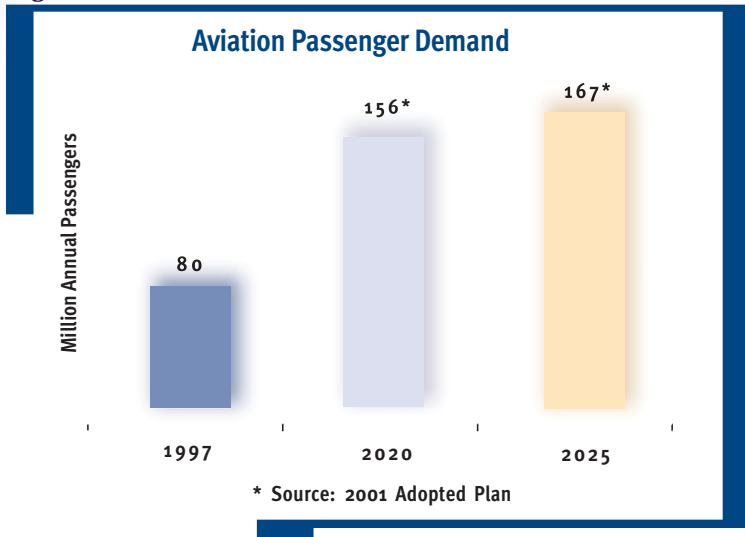
SNA = John Wayne
PSP = Palm Springs
Incent = Market Incentives

LAX = Los Angeles Int'l
PLM = Palmdale
HSR = High Speed Rail

LGB = Long Beach
MUG = Point Mugu

AVIATION AND AVIATION GROUND ACCESS

With the Region becoming an even greater international gateway, there will be an increase in the number of air passengers, as well as goods, coming into (and going out of) Southern California. The year 2025 may see the arrival or

Figure 5.9

departure of more than 167 million passengers annually, up from the 80 million recorded in 1997 (see Figure 5.9). At the same time, air cargo demand is expected to reach 9.5 million tons. Not only will these increases require greater capacity in the airport system, but they will also impact roads near the airports. Domestic and international air travel and air cargo will play increasingly important roles in the Region's economic growth. Additionally, general aviation airports will play an increasing role in relieving congestion at capacity constrained airports.

The 2001 RTP, when forecast to 2025, indicates a regional demand of 167 million annual passen-

gers. The capacity of the existing urbanized commercial airport system (excluding Palm Springs and former military air bases) is estimated at 120 million annual passengers. Without airport development, the system will experience a passenger capacity shortfall of 28 percent by 2025.

Over the same period of time, air cargo is expected to grow from 2.6 million annual tons in 1997 to 9.5 million annual tons in 2025. This cargo growth rate is almost double the passenger growth rate and reflects actual increases since 1992 and expected increases in Pacific Rim air cargo activity.

Aviation System Investments

The growth in air passenger and air cargo demand requires the judicious expansion of existing commercial service airports and the development of former military air bases if the economic benefits of air commerce are to be fully captured by the Region. Several military air bases were closed in the 1990s, allowing the Region the opportunity to develop the additional airport capacity. These former air bases include El Toro Marine Corps Air Station, Norton Air Force Base (San Bernardino International Airport) and George Air Force Base (Southern California Logistics Airport). Joint-use facilities include March Air Reserves Base (now a joint-use base called March Global Port), Palmdale Regional Airport and (potentially) Point Mugu.

The potential adverse impacts of airport expansion require the consideration of regional strategies and policies to decentralize aviation demand and provide an equitable distribution of regional aviation facilities. In addition, the expansion of existing airports and development of former military air bases should take into account the impacts of population and job growth in the Region so that regional trip-making is reduced and community impacts are minimized.

Since the 1998 RTP did not fully resolve some regional aviation issues, an Aviation Task Force consisting of elected officials and aviation industry professionals was formed to develop and evaluate additional scenarios and provide further policy direction to the Regional Council.

Four main policy questions were analyzed:

- ▶ Can we decentralize aviation demand by assuming physical constraints at LAX and other urbanized airports?
- ▶ Can we decentralize aviation demand by developing El Toro and/or other former military bases as commercial airports?
- ▶ Can we decentralize aviation demand through high-speed rail linkages between airports?
- ▶ Can we decentralize aviation demand through market incentives at Palmdale and the Inland Empire airports?

Aviation Strategy

The 2001 RTP is pursuing a strategy to shift demand away from heavily used LAX to other airports throughout the Region. The assumptions for the preferred strategy are:

- LAX is constrained under this scenario to its existing physical capacity, estimated at 78 million annual passengers (MAP).
- Burbank, John Wayne and Long Beach are constrained to their legal or estimated physical capacities.
- Ontario has a third runway to accommodate demand.
- Palmdale, March Global Port, Palm Springs, San Bernardino International and Southern California Logistics airports are unconstrained.
- High-speed rail linkages between airports along the Maglev corridor are assumed, as well as market incentives at Palmdale and emerging airports.

Under this strategy, aviation demand is expected to be 167 million passengers and 9.5 million tons of air cargo in 2025.

Implementation of the Strategy

To implement an adopted regional aviation element, structured as a component of the RTP, new institutional arrangements are necessary. SCAG operates as the designated Metropolitan Planning Organization and is mandated by the federal government to research and draw plans for transportation (including airports), growth management and air quality, but has no implementation authority over airport development beyond prioritizing surface transportation projects funded by the Federal

Table 5.15

AVIATION SYSTEM (MILLION ANNUAL PASSENGERS)		
	1997	2025
Burbank	5	9*
El Toro	n/a	30
John Wayne	8	8*
Los Angeles Int'l	59	78*
Long Beach	1	3*
March Global Port	n/a	2
Ontario	6	30
Palm Springs	1	3
Palmdale	<1	2
Point Mugu	n/a	n/a
San Bernardino Int'l	n/a	2
Southern California Logistics	n/a	1
Market Incentives	n/a	yes
High Speed Rail	n/a	yes
Total Million Annual Passengers	80	167

*indicated airport legally or physically constrained
n/a = not applicable

Highway Administration. SCAG must work cooperatively with agencies such as the California Department of Transportation (Caltrans) as well as federal and local agencies to facilitate the plans that it creates.

The authority for the implementation of SCAG's regional aviation plan currently rests with individual airports. The Southern California Regional Airport Authority (SCRAA) offers a new opportunity to implement regional aviation plans. The SCRAA consists of members from the City of Los Angeles, Riverside, San Bernardino and Orange. SCAG is a non-voting member of the Authority's Board of Directors.

Guiding Principles:

- ▶ Provide for regional capture of the economic development opportunities and job growth created by the prospect of significant growth in air traffic in the Region between now and 2025.
- ▶ Reflect environmental, environmental justice and local quality of life constraints at existing airports that operate in built-out urban environments.
- ▶ Distribute maximum opportunity to Southern California airports where population and job growth over the next two decades are expected to be strong and where local communities desire the air traffic for economic development reasons.
- ▶ Reflect that each county should have both the obligation and the opportunity to meet its own air traffic needs where feasible.

ACTION—Support the expansion of capacity at major existing and potential regional airports to handle anticipated increases in both passenger and cargo volume.

ACTION—Mitigate the effects of expanding existing airports and consider the reuse of military air bases so that community impacts are minimized.

ACTION—Maximize air passenger and air cargo utilization of outlying airports in less populated areas.

Ground Access

The recommended Aviation strategy will have localized ground access impacts at a number of airports. Particularly, the proposed scenarios would increase airport activities (people as well as cargo movement) dramatically at Ontario and El Toro. Analysis shows that airport traffic impacts are concentrated near airports but that background congestion affects both airports and local communities. A number of freeway and arterial improvements and transit strategies are proposed in the Plan to address the ground access issues as part of the overall transportation investment in the Region. Specific ground access improvements proposed in the Plan are identified in the RTP Technical Appendix.

ACTION—Construct improvements on arterials, highways and rail lines to accommodate added freight movements to and from airports.

ACTION—Support subregions in obtaining funding for ground access studies.

TRANSPORTATION DEMAND MANAGEMENT (TDM)

The potential state of TDM in 2025 depends largely on the level of funding as well as social and institutional commitments. If we were to do nothing beyond the Baseline, it is unlikely that we could even sustain the current level of ridesharing, telecommuting and work-at-home, let alone expanding them over the 2001 RTP period. While the total number of HOV lane users could increase due to absolute increase in population/employment and a more complete HOV lane network, it is unlikely that the number of vanpools will increase significantly beyond its current level.

Investments in TDM

Regionally, we must sustain the existing carpool market share. Just a one percent drop in the carpooling rate translates into more than 40,000 additional vehicles on our freeways and surface streets daily, which in turn results in an annual increase of 302 million vehicle miles of travel.

Key recommendations to maintain and increase carpool share are:

- ▶ Program funds in the RTIP to maintain the existing carpool market and increase the number of carpoolers by 8,000 per year.
- ▶ Pursue dedicated funding for education and outreach to the general public to increase awareness of and participation in the regional rideshare program.

ACTION—Support the maintenance of the existing carpool market share and an increase in carpooling.

ACTION—Continue to support funding for education and outreach to the general public in order to increase awareness and participation in carpooling and vanpooling.

Table 5.16

TDM & NON-MOTORIZED INVESTMENTS (IN MILLIONS)				
County	Non-Motorized	Rideshare	ITS/Traveler Information	TDM (Park-and-Ride Lots, Telecommute, etc.)
Imperial	\$30	\$0	\$0	*
Los Angeles	\$385	\$180	\$555	\$155
Orange	\$139	\$50	**	\$31
Riverside	\$50	\$22	\$25	\$25
San Bernardino	\$50	\$45	\$29	\$25
Ventura	\$65	\$0	\$80	*
Regional Total	\$719	\$297	\$689	\$236

* Imperial and Ventura County costs for TDM are included in the Non-Motorized amount.

** Orange County costs for ITS are included in the Rideshare amount.

Vanpools

Vanpooling is considered one of the most cost-effective TDM strategies for long-distance commuters. The effectiveness of vanpooling is based on its ability to reduce vehicle trips and vehicle miles of travel. Within the SCAG Region, there are over 2,000 vanpools in operation, carrying an average of 10 riders and travelling approximately 35 miles per one-way trip. Vanpool programs are primarily operated by the private sector, thereby utilizing minimum public subsidy.

Vanpooling has traditionally been considered to be most suitable for long-distance commuting. However, in some metropolitan areas such as Seattle, they are increasingly being used for short-to-medium-range commute trips. Additionally, in some markets, vanpools are being utilized to replace costly, inefficient express bus service.

Vanpools and transit markets may overlap. Both might serve trips from suburban communities into central areas or other suburban activity centers. However, vanpools or jitneys can serve low-density residential communities where transit operators cannot or do not offer service. Additionally, vanpools can service those traveling on reverse commutes, where transit service may still be lacking.

There are several situations that favor vanpool applications:

- ▶ Tight parking around the destination site or where drivers must pay for parking or both.
- ▶ The presence of HOV facilities on freeways.
- ▶ Preferential parking, variable work hours and guaranteed ride-home programs at the work sites.
- ▶ Transit does not serve the area or is not planned for the future, or estimated travel demand does not warrant service with full-size buses.

ACTION—Formalize and expand the existing partnership among public and private sector stakeholders to improve delivery of vanpool services regionwide.

ACTION—Increase the number of commuter vanpools from 2,000 to 5,000 through more effective marketing and the provision of non-monetary public sector incentives.

ACTION—Establish a dedicated funding source for planning and the implementation of vanpool programs and services.

ACTION—Improve the provision of vanpool services in the Region through the public sector's increase of dedicated staffing and resources.

ACTION—Facilitate a regionally coordinated marketing strategy among the public and private sectors that would enhance vanpool programs, increase ridership and unify the current limited and fragmented outreach efforts.

Telecommuting

Telecommuting is the most popular program that an employer can offer employees to reduce vehicle trips. In fact, if given the opportunity to telecommute, more than eight in ten full-time workers actually do, at an average of 3.4 days per month. However, telecommuting is one of the least frequently offered programs by employers. Outreach strategies should be aimed at employers, rather than employees, to promote the benefits of telecommuting and to provide recommendations on how to implement a telecommuting program at the work site.

- ▶ SCAG intends to continue working with the interagency working groups to finalize the design of an emission trading pilot program based on telecommuting.
- ▶ Pursue an aggressive education and public outreach program, particularly at work sites with less than 250 employees. This may include a program to generate tax deductions for emissions reduced. If viable, this could be based on allowing charitable deductions to employers for the market value of the emissions reduced. The credits generated by employers would be donated back to the Region for SIP and conformity requirements.
- ▶ Consider an emissions trading program that would allow employers not regulated by Rule 2202, as well as those that are, to trade telecommute credits for reaching average vehicle ridership (AVR) goals. Under such a scheme, trading would occur between these two parties within the confines of Rule 2202.

Park-and-Ride Facilities

Park-and-ride facilities are a significant component of the transportation and transit system in the SCAG Region. Their objective is to provide a safe and convenient location for travelers to change from single occupant vehicles to high occupancy modes such as bus, rail, carpools and vanpools.

Park-and-ride facilities could play an important role in supporting commuter rail, heavy and light rail transit, busway, HOV, express bus service and local bus systems. However, the lack of dedicated resources for marketing, maintenance and operations has adversely affected the available capacity and utilization of park-and-ride facilities within the SCAG Region.

ACTION—Fully integrate park-and-ride facilities into SCAG’s existing and future transportation planning and programming processes.

ACTION—Establish a regional, interagency committee to develop and implement regionwide policies and programs pertaining to the operation, maintenance and expansion of park-and-ride facilities.

ACTION—Develop strategies to address security issues and to combat vandalism.

ACTION—Develop and implement a regionally coordinated public outreach strategy to better inform the public on the location of all park-and-ride facilities within the SCAG Region.

ACTION—Enhance the existing centralized database and ensure the incorporation of information on all park-and-ride facilities into this central information system.

ACTION—Develop and implement a coordinated schedule by which each agency will monitor its park-and-ride facilities on a monthly basis to determine the utilization rates over time; incorporate this information, along with any facility changes/additions (including transit service changes), into the central information system.

ACTION—Secure dedicated funding sources for the development and implementation of these recommended actions.

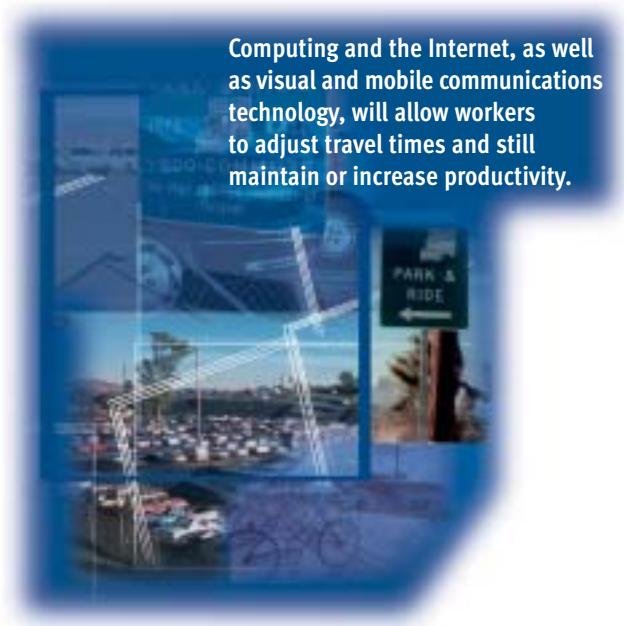
Electronic Workplaces and Electronic Commerce

The revolution in communication and computing technology will create new opportunities for work, social and economic activities to be carried out without the need for individuals to travel as they have historically done. The electronic workplace may be at home, on a train, at a meeting, in the field or at a satellite work facility. Computing and the Internet, as well as visual and mobile communications technology, will allow workers to adjust travel times and still

maintain or increase productivity. Meetings, for instance, may be held through teleconferencing, thereby reducing the need for many workers to travel or reducing travel during peak periods. Reports and graphics may be prepared and sent for review electronically, thereby reducing the need to transport those materials.

Information technology also allows people to order goods and services on-line instead of making trips. A proliferation of e-commerce will increase consumer choice, without an increase in the propensity to travel to acquire those goods and services. Everything from entertainment to office supplies and groceries may be ordered reliably through electronic commerce and delivered to the desired site.

The quantification of the mobility and air quality benefits of such strategies is still preliminary. Early indicators of productivity, such as the number of orders to various services and surveys of employees who use flexible schedules made possible by new technology, indicate that changes in travel are likely. The RTP must begin to analyze and quantify these still emergent benefits as they develop. Trend analysis of the electronic information phenomenon should be possible using many commercial indices of electronic workplace and commerce activities. SCAG is currently developing a number of efforts aimed at tracking e-commerce and assessing the issues and likely benefits for mobility and air quality based upon changes in travel behavior.



NON-MOTORIZED TRANSPORTATION

Non-motorized transportation, by its very nature, would be more effective at a local level in communities that are densely populated and have a good mix of land uses, including commercial, residential and institutional. It can mainly serve as a recreational mode at a regional level. Unless substantial investments in non-motorized transportation are coordinated with other modes and facilities, it would be very difficult to gain a significant increase in mode share of the work trips for non-motorized transportation in 2025.

Investments in Non-Motorized Transportation

Bicycle and pedestrian improvements help to enable the vision of Livable Communities and provide non-motorized linkages to activity centers. Approximately \$720 million for non-motorized projects are identified for the 2001 RTP (compared to \$400 million over the Plan period of the 1998 RTP). The Baseline contains about \$180 million in funding related to non-motorized projects. This represents approximately 0.12 percent of the total Baseline funding. Therefore, the proposed funding represents a significant increase in the funding level for non-motorized transportation. The Region's decision-makers should continue to promote the integration of non-motorized modes into the

transportation planning process and take steps to move beyond conceptual planning and development to the implementation of plans and strategies. The following actions are recommended to facilitate the achievement of these goals:

ACTION—Determine the potential and desired mode split of non-motorized modes in congestion reduction and adopt vision, goals and objectives accordingly.

ACTION—Determine the ability of the existing non-motorized system to achieve the desired vision, goals, objectives and update and implement the existing SCAG regional plan as appropriate.

ACTION—Identify and develop strategies to address institutional, transportation, funding, infrastructure and other barriers to the effective use of non-motorized transportation for commute purposes.


ACTION—Identify strategies to link non-motorized transportation funding programs to standards for Livable Communities and transit programs by providing communities flexibility in how they address Livable Communities goals and programs.

ACTION—Fund the development and implementation of pedestrian and bicycle safety and education programs aimed at persons of all ages, potential bike commuters and motorists.

ACTION—Sponsor legislation and/or ordinances to increase the enforcement of bicycling and driving laws to provide a safer climate for pedestrians and cyclists.

ACTION—Develop and implement bicycle incentive programs that recognize and reward employees for bicycle use similar to those that reward transit use.

ACTION—Introduce legislation that provides for business tax credits and other incentives to encourage the use of bicycles.



Approximately \$720 million for non-motorized projects are identified for the 2001 RTP.

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Intelligent Transportation Systems (ITS) represent a means of applying new technological breakthroughs in detection, communications, computing and control technologies to improve the safety and performance of the surface transportation system. This can be done by using the technologies to manage the transportation system to respond to changing operating conditions, congestion or accidents. ITS technology can be applied to arterials, freeways, transit, trucks and private vehicles. ITS includes Advanced Traffic Management Systems (ATMS), Advanced Vehicle Control Systems (AVCS) and Commercial Vehicle Operations (CVO).

Today, applications of ITS technologies allow the monitoring of traffic conditions and the dynamic adjustment of traffic signals to reduce unnecessary delay; the automated collection of tolls; and advanced detection and television cameras to detect, assess and respond to traffic accidents and incidents. In the future, ITS technologies will automate transit fare collection and parking payments, use vehicle location systems to track trains and buses to give users “real time” arrival and departure information, as well as use onboard systems to detect and avoid collisions.

Within the SCAG Region and San Diego County is the Southern California ITS Priority Corridor, which is one of four corridors of national significance identified for early ITS deployment by Congress under the Intermodal Surface Transportation Efficiency Act (ISTEA). The ITS plan for this corridor includes major local elements developed by three public-private committees, including LA-Ventura, Orange County and the Inland Empire. The Plan coordinates architecture, standards and institutional issues and also provides the framework for deploying an integrated ITS.

The Plan's ITS strategy includes a number of components and user services:

- ▶ Completion of advanced traffic management of the Region's freeways and certain arterial corridors, through traffic operations centers, signal synchronization, ramp meters and visual detection.
- ▶ Advanced Traveler Information Systems will provide real-time information to system users on traffic conditions, incidents, accidents, events, weather and alternative routes and modes.
- ▶ Advanced Public Transportation Systems will provide some of the technology to implement improved dispatching of transit vehicles and will enable vastly improved demand-responsive transit services.

ACTION—Intelligent Transportation Systems (ITS), where applicable, shall be included in, and implemented through, mainstream planning and programming processes. And, where feasible and applicable, ITS should be incorporated as an operational component, in the design and construction of new federally funded facilities, or in the procurement processes for new equipment, consistent with the requirements of the National Architecture Rule.

LAND USE—TRANSPORTATION

Livable Communities

Under the strategy of Livable Communities, SCAG and other policy leaders are placing a growing emphasis on new land-use and transportation policies that will accommodate future growth while addressing automobile traffic and air quality concerns. The focus of the Livable Communities program is to enhance community livability by promoting real-world examples of vibrant, attractive places in Southern California. A key strategy is establishing a shared community vision that promotes community development and main street revitalization scaled to people, not automobiles.

Livable Communities strategies encourage efficient growth patterns that promote alternatives to the automobile by creating a mix of homes, shops, work places, parks, schools and civic institutions that are linked to pedestrian- and bicycle-friendly public transportation centers. Strategies such as transit-oriented and mixed-use development employ a combination of design features, including improved street connectivity, public amenities and a concentration of residences and jobs in proximity to transit routes, resulting in reduced area-wide traffic congestion and improved air quality.

The 2001 RTP includes a number of policies that support the local governments' development of pedestrian- and transit-friendly Livable Communities. These policies include transit-oriented development, mixed-use centers, non-motorized transportation facilities, transit improvements and private investment through location efficient mortgages (LEMs).

Because many impacts of the Livable Communities strategies are realized at a neighborhood or community scale, it is difficult to quantify benefits at the regional scale. SCAG's Livable Communities Subcommittee was created to address this issue. The Subcommittee has identified the location efficiency index and transit and non-motorized mode split as two Performance Indicators of "livability." Their recommendations led to current efforts aimed at realizing quantifiable impacts of program strategies on vehicle trips, vehicle miles traveled and air quality.

SCAG is committed, through its RTP, to accommodate projected population and employment growth, while maintaining a high quality of life for all residents of the SCAG Region. The Livable Communities program incorporates a variety of dynamic land-use and transportation policies to contribute toward achieving this end.

ACTION—Refine SCAG regional modeling to address land-use/ transportation and air quality interactions.

ACTION—Refine and apply new performance measures for Livable Communities.

ACTION—Establish incentives to encourage the implementation of Livable Communities strategies by local governments and subregions, private developers and financial institutions.

ACTION—Implement a legislative strategy to support Livable Communities goals. A first step would be to evaluate the package of bills proposed by the new Smart Growth caucus in the California legislature.

ACTION—Support the Regional Transit Task Force recommendations for transit policies that improve the efficiency, effectiveness, coordination and stability of transit operation as well as increase transit mode share within the SCAG Region.



Location Efficient Mortgages

The location efficient mortgage (LEM) strategy combines market incentives with land-use decisions to reduce vehicle miles traveled and vehicle trips and improve air quality. LEMs can enable people living in or near a neighborhood served by public transit to afford a larger home mortgage. This strategy provides a tangible, monetary incentive to increase population density in areas currently served by public transit and locate future residential and mixed-use development near existing or planned transit facilities.

Efforts to develop and promote LEMs will continue to be supported by the 2001 RTP. With LEMs in place, lenders provide credit for transit access when determining mortgage eligibility. LEMs provide mortgage accessibility to a higher percentage of the urbanized population and support home ownership in centers with multi-modal transit access.

ACTION—Support continuing efforts by the Center for Neighborhood Technology and Surface Transportation Policy Project to develop and promote LEMs and obtain participation agreements by lending institutions.

ACTION—Develop methodologies to quantify mobility and air quality impacts of LEM.

ACTION—Work with the housing industry, financial institutions, affordable housing interests and agencies to promote the LEM strategy.

Integrated Land Use, Transportation and General Planning

As the Southern California Region enters the 21st Century, the promotion of sustainable growth and development patterns will be critical to continued regional prosperity and improved quality of life. The challenges of future population and employment growth and their effect on traffic congestion, transportation investment choices, air quality and housing needs are significant long-range planning issues. As such, the Region has begun to re-evaluate the transportation-land use planning process, with an emphasis on better coordination between the two.

In response, SCAG has created the Growth Visioning Subcommittee to inform, engage and facilitate consensus on a vision and strategy for addressing the challenging consequences of anticipated growth in the Region. Expanding on the Livable Communities program, the Growth Visioning Subcommittee has been established as the forum to review alternative strategies to accommodate this growth. Specifically, this subcommittee is charged with developing a process that assists local, subregional and regional officials in developing strategies to accommodate growth that result in a preferred regional growth scenario.

These efforts are intended to guide future growth forecasts in a manner that recognizes the impacts of the location of projected employment and population growth on land-use patterns, transportation facilities and the environment and open space. Examples of these strategies might include promoting Smart Growth in activity centers and along growth corridors, focusing growth in pedestrian-friendly, transit accessible communities and achieving a better regional jobs-housing balance. These strategies, used in concert, can provide Southern Californians with additional housing, employment and transportation choices, while protecting the natural environment for future generations.

Smart Growth

Smart Growth is well-planned, efficient development that channels projected population and employment growth into existing areas and designated growth corridors in a manner that:

- ▶ saves our most valuable remaining natural resources,
- ▶ supports existing communities and neighborhoods,
- ▶ reduces commute times, commute distances and mobile source emissions,
- ▶ provides mass transit options and
- ▶ saves taxpayers millions of dollars in the cost of building unnecessary infrastructure.

Smart Growth is not meant to limit growth, rather to encourage growth in the areas best suited to accommodate it.

Livable Communities / Transit-Oriented Development

Livable Communities principles are neighborhood-level strategies that encourage efficient growth patterns and promote alternatives to the automobile by:

- ▶ creating a mix of homes, shops, work places, parks, schools and civic institutions,
- ▶ locating a significant share of new housing and jobs within walking distance (1/4 mile) of transit stations or major bus corridors,
- ▶ linking communities and neighborhoods with viable pedestrian and bicycle facilities and
- ▶ promoting in-fill development to revitalize under-utilized and vacant sites.

Jobs/Housing Balance

The lack of affordable housing near employment centers is greatly exacerbating the demand on transportation systems and adding to air pollution from vehicles. Thus, jobs/housing balance strategies aim to reduce commute distances by:

- ▶ developing needed affordable housing in high growth urban and suburban job centers and
- ▶ attracting viable job centers to housing-rich communities.

ACTION—Continue working with the Growth Visioning Subcommittee to develop strategies to accommodate growth that result in a preferred growth scenario.

ACTION—Coordinate with subregions and local governments to ensure that local plans are consistent with the regional growth forecast.

ACTION—Study the feasibility of establishing locally designated Smart Growth Planning Areas that receive funding incentives for projects reflecting Smart Growth principles.

ACTION—Assist communities and subregions in accessing new jobs/housing incentive funds from the State Department of Housing and Community Development.

ACTION—Establish incentives to encourage the implementation of Growth Strategies by local governments and subregions, private developers and financial institutions.

ACTION—Establish Performance Indicators to measure progress toward achieving Growth Strategies goals.

ACTION—Implement a legislative strategy to support Growth Strategies goals.

ACTION—Support the Livable Communities Task Force recommendations for community-based policies that encourage efficient growth patterns and promote alternatives to the automobile.



Accessing the Activity Centers

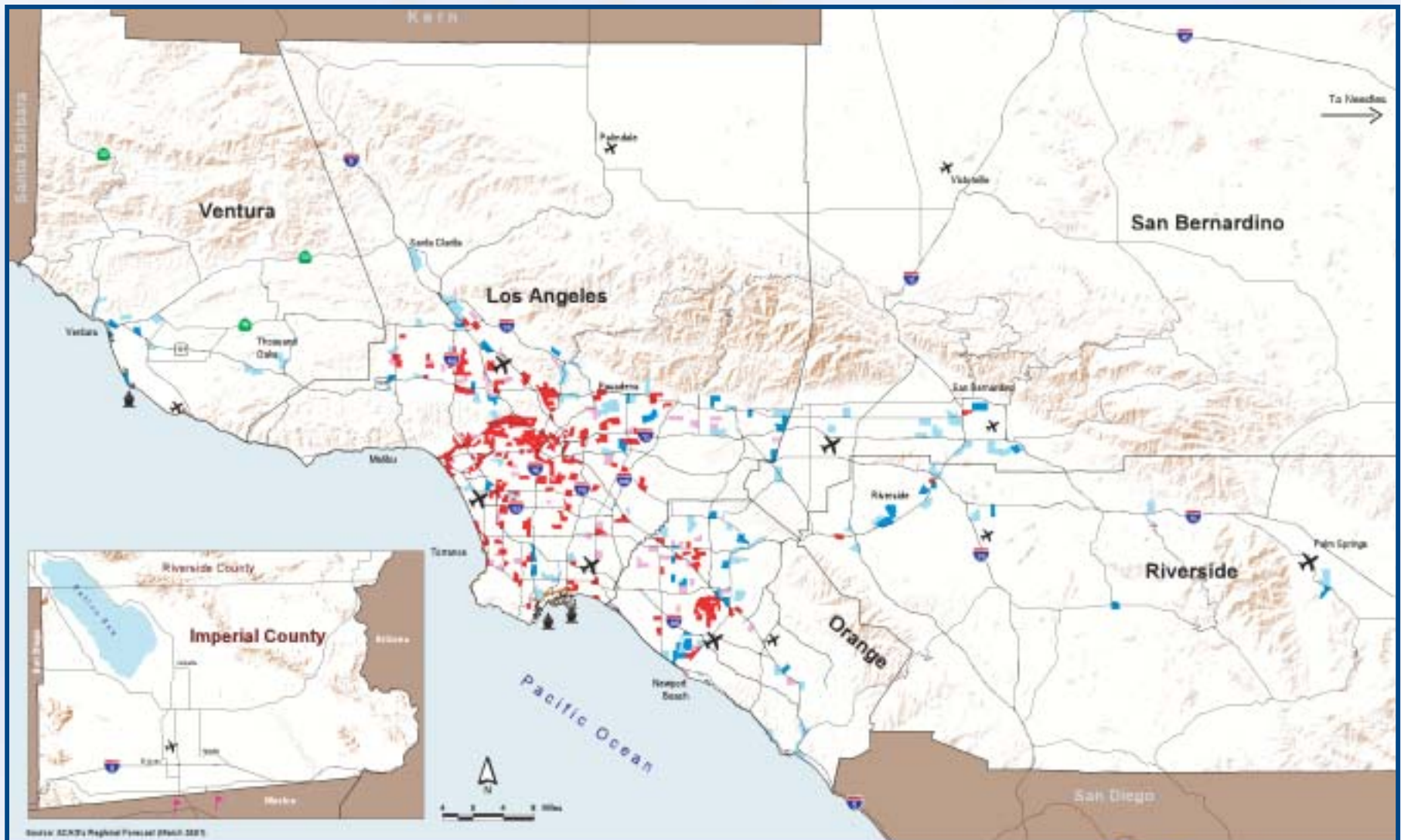
It is common knowledge that Southern California is a huge region with diverse land-use density and intensity. Focal points of the Region are many and dispersed. This makes transportation planning all the more challenging in this Region. Given the fiscal, physical and environmental constraints to building more roads and expanding our transportation network to accommodate future growth, it is imperative that we develop programs and policies that will serve our dispersed land-use pattern most effectively.

Exhibits 5.9 and 5.10 depict intensity of land use in terms of employment and population for 1997 and 2025, respectively, thereby identifying the activity centers within the Region. The challenge lies in developing the most effective ways to utilize our existing transportation infrastructure to link the activity centers so as to ensure that the transportation system complements our land-use pattern. This can be accomplished in two ways. First, in the short term, the Region can begin to develop initiatives that will allow trip-making in different ways—for example, by utilizing scheduled service vanpools that are specifically designed to provide access to the activity centers, and more flexible jitney services that use up-to-date information technology. In the long run, we must seek to relate the growth patterns, job development and housing creation to transportation innovations that reinforce and provide a stronger linkage between activity centers.

ACTION—Support policies that will complement our land-use/transportation patterns to provide stronger linkage between activity centers.

ACTION—Support scheduled service vanpools and jitney services that link activity centers.

1997 Activity Centers



1997 Activity Centers

- Port
- Airport / Potential Airport Site
- Port of Entry

The SCAG Region
2001 RTP

Jobs/Pop per Square Mile

- Emp > 4,000 and Pop > 10,000
- Emp 3,000 - 4,000 and Pop 7,000 - 10,000
- Emp 2,000 - 3,000 and Pop 5,000 - 7,000
- Emp 1,000 - 2,000 and Pop 3,000 - 5,000

Freeways and Highways

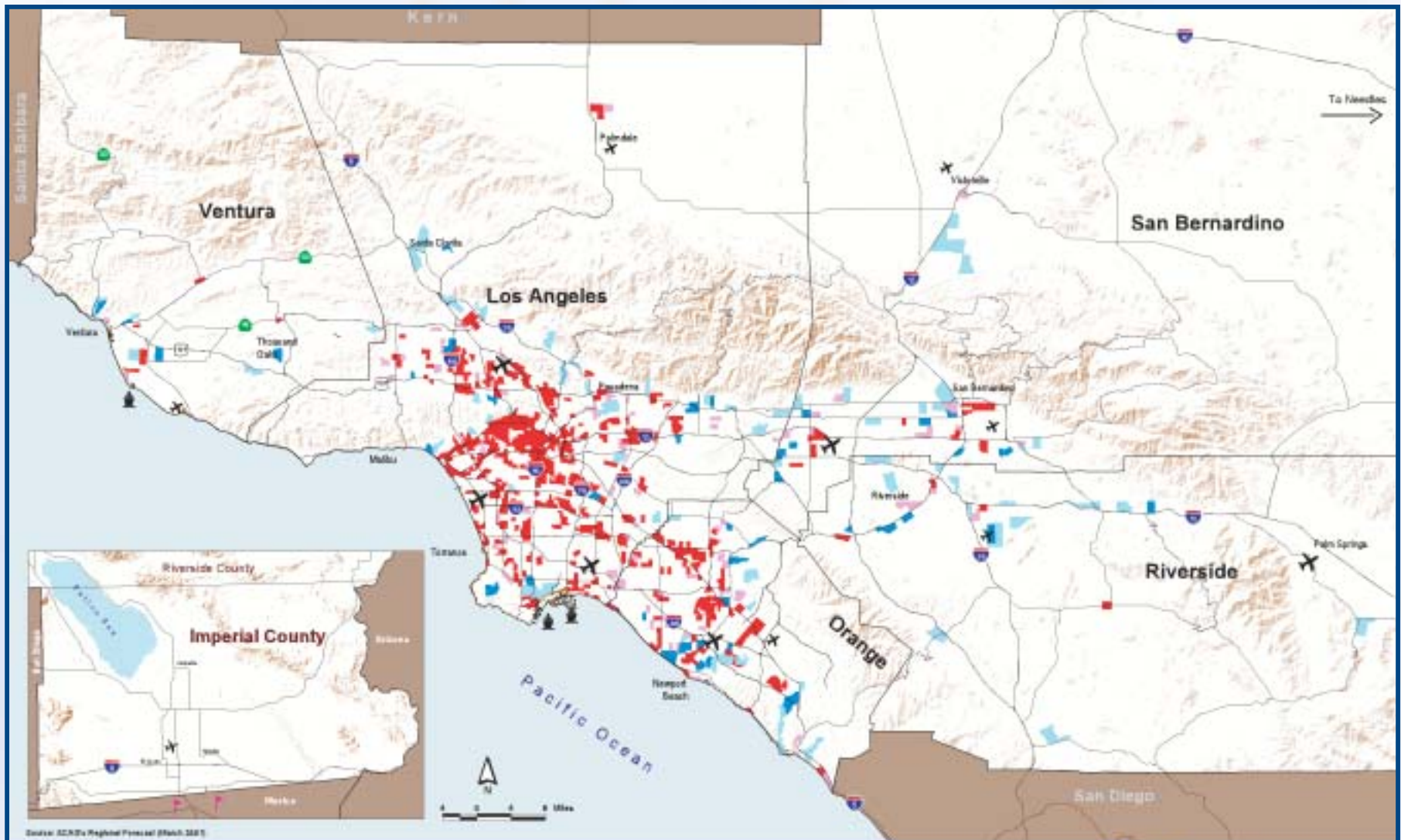


Exhibit 5.9



Southern California Association of Governments
April 2001

2025 Activity Centers



2025 Activity Centers

- Port
- Port of Entry
- Airport / Potential Airport Site

The SCAG Region
2001 RTP

Jobs/Pop per Square Mile

- Emp > 4,000 and Pop > 10,000
 - Emp 3,000 - 4,000 and Pop 7,000 - 10,000
 - Emp 2,000 - 3,000 and Pop 5,000 - 7,000
 - Emp 1,000 - 2,000 and Pop 3,000 - 5,000
- Freeways and Highways

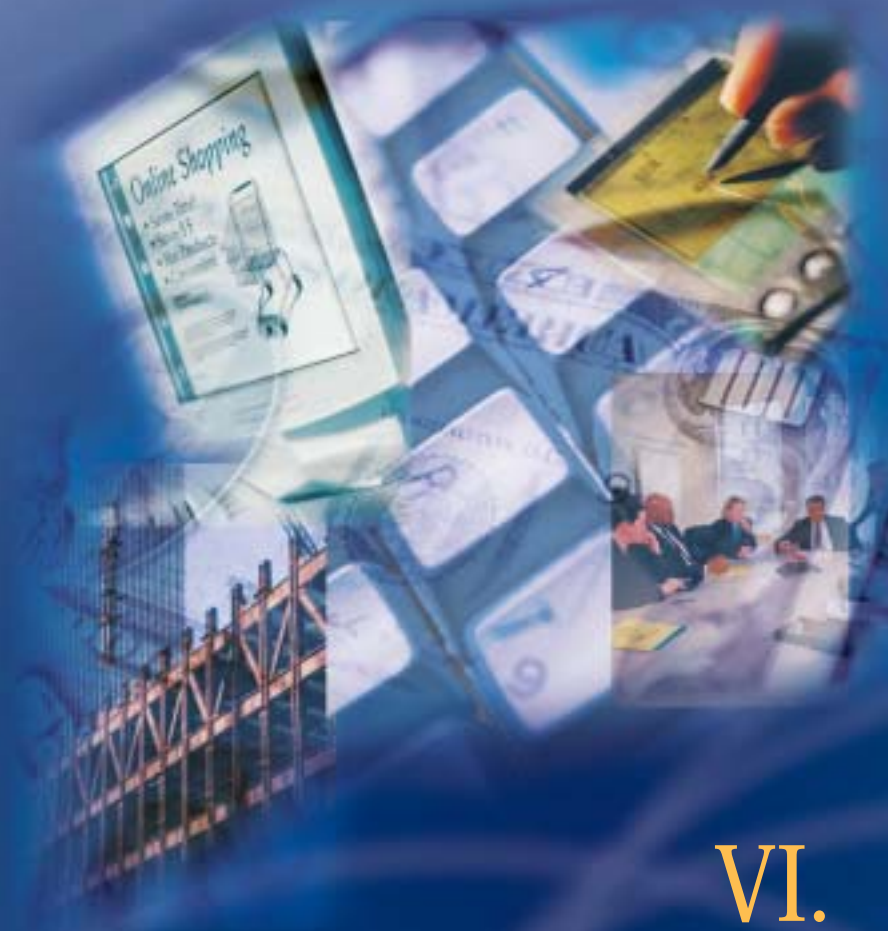


Southern California Association of Governments
April 2001

Exhibit 5.10



ASSOCIATION OF
GOVERNMENTS



VI.

f i n a n c e

INTRODUCTION

The development of the financial plan for the 2001 RTP has been under the direction of the SCAG Long-Range Transportation Finance Task Force, composed of local elected officials and local agency staff. The Task Force was created to examine how best to provide the financial resources necessary for maintaining the existing transportation system and investing in new projects identified in the RTP.

After reviewing the economic and growth assumptions governing the various transportation revenue sources, the Task Force approved sixteen revenue sources for inclusion in the financial plan. These existing revenue sources, including local, state and federal funds for roadways and transit, make up the Baseline revenue forecast for the RTP. The Baseline revenue forecast for the six-county SCAG Region is estimated to be \$100 billion for the 2001 RTP period.

To assess the implications of the forecast, the Finance Task Force created a Regional Checkbook, where the Baseline revenues were matched against a forecasted set of Baseline expenditures. The Baseline expenditures, an estimated \$100 billion, essentially represent the costs to maintain the Region's transportation system and accommodate limited growth in transit ridership through 2025.

As the table below indicates, the initial Regional Checkbook forecasted a potential funding shortfall to support the new projects identified in the 2001 RTP, a substantial change from the 1998 RTP. The change is attributable to several conditions influencing the formulation of the 2001 RTP financial forecast, including:

- ▶ the sunset of local transportation sales taxes in Imperial, Orange, San Bernardino and Riverside Counties during the time frame of the 2001 RTP;
- ▶ the projected loss of gasoline tax revenues due to the market penetration of alternative fuel vehicles over the life of the 2001 RTP; and
- ▶ the projected costs of operating and maintaining the existing transportation system in the Region.

Additionally, legal mandates such as the Consent Decree in Los Angeles County impact the financial forecast. The Consent Decree requires that the Los Angeles County Metropolitan Transportation Authority (LACMTA) purchase additional buses and provide increased bus services.

As a consequence of the Region's potential revenue shortfall, the Finance Task Force recognized the need for a financial strategy to fund the transportation facilities and services required for a growing population.

Table 6.1

REGIONAL CHECKBOOK 1998 RTP VS. 2001 RTP CONSTANT 1997 DOLLARS (IN BILLIONS)		
	1998 RTP	2001 RTP
Baseline Public Revenues	\$90	\$100
Baseline Public Costs	\$65	\$100
Subtotal	\$25	\$0
Public Funding Strategy	\$0	\$24
Net Public Funds for New RTP Projects	\$25	\$24

Faced with the challenge of identifying additional revenues, the Finance Task Force devised a funding strategy that would raise \$24 billion in public revenues and \$20 billion in other innovative sources to offset the total cost for advancing new RTP projects. SCAG's policy committees, including the Regional Technical Advisory Committee and the Transportation and Communications Committee, expressed concerns similar to those of the Finance Task Force regarding the implications of the Region's potential funding shortfall. The financial strategies recommended to bridge the funding gap are outcomes of the discussions held at these committee meetings to ensure that there are adequate revenues to meet the challenge of added population and travel over the next quarter century.

To this end, the following section begins with an inventory of existing revenue sources identified in the 2001 RTP financial plan and discusses some of the many conditions limiting the growth of these sources. The overall policy context for creating the financial forecast is reviewed and an assessment of its implications for the development of a credible regional transportation plan is examined. The discussion concludes with a framework for advancing specific funding strategies.

REVENUE SOURCES

The revenues identified in the 2001 RTP financial forecast are those that have been providing for the construction, operation and maintenance of the current roadway and transit systems in the Region. The Baseline revenues include existing local, state and federal transportation funding

Table 6.2

REVENUE FORECAST, 1997-2025 MILLIONS (CONSTANT 1997 DOLLARS)		
Funding Source	Regional Total	% of Total
Local Sources		
TDA	\$14,118.90	
Local Sales Tax	36,156.30	
Farebox	12,756.30	
Local Agency Funds (1)	4,646.20	
Miscellaneous Funds (2)	2,404.00	
Subtotal	70,081.80	70%
State Sources		
STIP, Regional	7,166.40	
STIP, Interregional	1,707.20	
Traffic Congestion Relief	1,921.40	
STA	857.00	
TP&D (TCI)/Prop 116	208.10	
SHOPP/O&M	5,264.10	
Subtotal	17,124.20	17%
Federal Sources		
RSTP	2,477.80	
CMAQ	2,463.30	
Local Assistance (3)	1,151.00	
Sec. 5309	2,462.80	
Sec. 5307 (4)	4,195.20	
Subtotal	12,750.10	13%
Total	\$99,956.00	100%

Notes:

- (1) Includes Orange County Gas Tax Fund and private and local contributions to Measure M program; TCA toll revenues; local agency contributions to specific projects (e.g., Alameda Corridor).
- (2) Includes transit advertisement and auxiliary revenues, lease revenues, interest and investment earnings.
- (3) Includes programs such as Regional Transportation Enhancements, Highway Bridge Rehab., Grade Crossings and Hazard Elimination. Also includes federal High Priority Projects for the Region, other federal funds for specific projects (e.g., Alameda Corridor) and MTA clean fuels program.
- (4) Includes Section 5311 (rural operating) funds for Imperial and Riverside Counties.

sources. As Table 6.2 summarizes, the revenue forecast for the six-county SCAG Region is estimated to be \$100 billion for the 2001 RTP period (1997-2025).

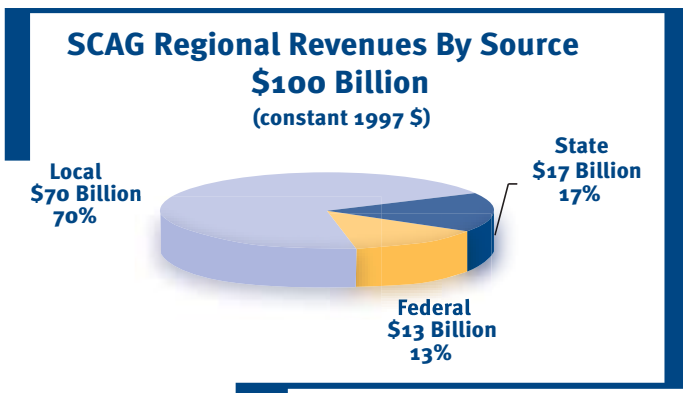
Although the existing funding sources, identified in this table, are insufficient to implement all significant projects that will improve mobility in the Region, the current sources of revenues provide a benchmark from which additional funding could be identified.

CONDITIONS IMPACTING REGIONAL TRANSPORTATION REVENUES

DEMISE OF THE LOCAL TRANSPORTATION SALES TAX

In the SCAG Region, four counties—including Imperial, Orange, Riverside and San Bernardino—are considered “self-help” counties. That is, voters of these counties approved special ($\frac{1}{2}$ percent) local sales tax measures dedicated to transportation expenditures for a limited time period. These local transportation sales taxes are scheduled to expire over the next ten years in each of the “self-help” counties in the Region. Currently, Ventura County does not impose such a tax and Los Angeles County levies a permanent 1 percent tax (a combination of two $\frac{1}{2}$ percent tax initiatives, Propositions A & C). As a result of a State Supreme Court decision, a two-thirds approval by county voters is required to re-authorize, increase and/or impose new local transportation taxes.

Figure 6.1



These taxes are in addition to the sales and use tax levied statewide, and are generally imposed upon the same transactions and items subject to the statewide sales and use tax, namely the sale of tangible personal property and storage or use/consumption within particular jurisdictions.

These local tax measures have become a central feature of transportation funding in the Region. Since the advent of the first tax in 1983, \$11.5 billion has been raised for transportation projects and services in the Region. Of that amount, \$6 billion is from Los Angeles County and \$5.5 billion is from the remaining four counties.

The local transportation sales tax also underscores the importance of local funding generally in financing transportation investments throughout the Region. In fact, the most significant source of revenue is local. Local funding accounts for 70 percent of the \$100 billion forecasted as being available for transportation investments in the Region (see Figure 6.1).

POTENTIAL MARKET PENETRATION OF ALTERNATIVE FUEL VEHICLES COULD LIMIT STATE AND FEDERAL GAS TAX REVENUE GROWTH

(FURTHER STUDY IS REQUIRED)

SCAG recognizes the need to further study the impact on future fuel tax revenues due to alternative fuel penetration. SCAG acknowledges that technological improvements, required to meet emission reductions, may result in a motor vehicle fleet that would consume less gasoline and/or rely on alternative fuels. The potential market penetration of alternative fuel vehicles, in addition to more fuel-efficient vehicles, would erode the revenues generated by gasoline sales and, if they come to pass, would diminish the gas tax as a reliable source of transportation revenue.

In relative terms, the growth in the use of gasoline has been declining over the last three decades. Between 1970 and 1997 vehicle miles traveled statewide increased 143 percent (from 117 billion to 285 billion miles) while the gallons of gasoline sold grew 70 percent (from 9.4 billion to 16.0 billion gallons). This shows that growth in travel exceeded the growth in gasoline sales by more than two times. California's population during that period, by comparison, grew by 63 percent. It is a further possibility that the California Air Resources Board's (CARB's) policies and the State Implementation Plan (SIP) requirements regarding the introduction of alternative fuels may substantially accelerate the divergence between the increase in travel and the use of gasoline.

It is evident that increased environmental concerns are playing a major role in developing pressures for alternative fuels or cleaner-burning petroleum products. The federal Clean Air Act Amendments (CAAA) of 1990, in conjunction with the CARB's Zero Emission Vehicle (ZEV) mandate, may affect the penetration rate of alternative fuel vehicles in the market.

In an effort to meet federal air quality requirements, the CARB adopted the ZEV mandate, requiring the introduction of true ZEVs and qualifying clean vehicle technologies. Additionally, the SCAG Region is subject to further emission reductions by the year 2010 as established in the 1997 SIP for the South Coast Air Basin (SCAB). The cumulative effects of these programs may reduce future fuel tax revenues for transportation. Further study is required.

There are other factors that may affect the evaluation of petroleum-based fuel sources, such as scarcity or our national energy policy's dependence on foreign sources.

There are certainly difficulties in developing cost-competitive alternative fuel vehicles. A sizeable alternative fuel vehicle market will not likely appear in the immediate future. Nevertheless, the long-term impacts are important to consider and study further.

Certainly, SCAG acknowledges that there may be limited market penetration of alternative fuel vehicles. The penetration rate could be very low with a minimal loss of gasoline tax revenues.

POTENTIAL EROSION OF TRANSPORTATION REVENUES DUE TO ELECTRONIC COMMERCE

There has been concern regarding the potential erosion of the retail sales and use tax due to Internet spending, in which consumers often enjoy not having to pay local and state sales taxes. Local sales taxes for transportation as well as Transportation Development Act revenues, which are derived from a $\frac{1}{4}$ percent sales tax, would be directly impacted by trends in retail sales. At the national level, the U.S. Congress created an advisory commission to make recommendations on how to address the impacts of e-commerce. The recommendations from the commission include extending the current moratorium on e-commerce taxation for an additional five years through 2006, and establishing clear “nexus” rules to determine whether businesses would be subject to sales and use tax collection obligations.⁴

Current retail sales conducted over the Internet remain small relative to total retail sales. According to the Advisory Commission report, online retail sales only accounted for 0.64 percent of all retail sales in the nation during the fourth quarter of 1999. This amounted to sales of \$5.3 billion out of a total of \$821.2 billion. However, business-to-business transactions are predicted to dominate the e-commerce industry, with transactions forecasted to be \$1.3 trillion by 2003.⁵



Whether through excise taxes, sales taxes or transit fares, overall economic conditions play a large role in the level of revenues that are available for transportation.

The potential impacts from e-commerce on the Southern California economy are not well known, although any trends towards the actual loss of sales tax revenue attributable to the Internet would have to be addressed by the transportation community. Since taxation issues and policies on e-commerce are currently under review nationally, it is premature to incorporate any potential revenue implications in the 2001 RTP financial plan. However, this topic should remain in the forefront of discussion in future RTP updates.

ECONOMIC FACTORS

The general health of the nation's economy underlies much of the revenues generated for transportation. Whether through excise taxes, sales taxes or transit fares, overall economic conditions play a large role in the level of revenues that are available for transportation. Although it is difficult to predict economic fluctuations, the revenue model takes a more conservative approach to providing forecasts in the outer years of the RTP time horizon. This provides fiscal

responsibility in the Region's ability to finance transportation projects. In addition, inflation is kept constant in the model to provide simple comparisons between alternatives in different time frames.

BASELINE EXPENDITURES

INCREASING COSTS FOR ENHANCING AND MAINTAINING THE REGION'S TRANSPORTATION INFRASTRUCTURE

The SCAG Region already has an estimable investment in transportation infrastructure comprised of arterials, state highways and public mass transportation facilities. Protecting this investment is essentially protecting a segment of the Region's economic engine. Should the existing system be allowed to deteriorate, an intolerable decline in mobility would result.

Baseline expenditures to maintain the existing regional transportation system for the SCAG Region are estimated to approach \$100 billion through the 2001 RTP period (1997-2025). This \$100 billion is what the Region is forecasted to expend to maintain the existing transportation system through 2025, without adding any new RTP projects beyond the current short-term capital commitments.⁶

Table 6.3

REGIONAL BASELINE COSTS 1998 RTP VS. 2001 RTP CONSTANT 1997 DOLLARS (IN BILLIONS)		
	1998 RTP	2001 RTP
Baseline Costs		
RTIP & Other Committed Projects	\$21	\$27 ⁽¹⁾
O&M	38	63 ⁽²⁾
Bonding Costs	5	9 ⁽³⁾
Total	\$65	\$100

Notes:

(1) Includes current TIP (2001-2006) capital projects that are "regionally significant." Includes committed sales tax revenues and funds from other sources for Measure projects. Measure tax project costs are spread between "pay as you go" financing and debt financing. This category also includes the total cost of the Governor's Traffic Congestion Relief Plan (TCRP) projects for the Region. Revenues associated with TCRP are included in the Region's Baseline revenues.

(2) Includes operations & maintenance expenses for both transit and roads, Caltrans 2000 SHOPP and transit capital replacement and rehabilitation. Forecasted transit and roadway O&M and capital replacement are assumed for the existing SCAG regional transportation infrastructure and new capital projects in the 2001/06 RTIP.

(3) Primarily debt bonded against Measure tax revenues. Includes anticipated new debt service issues during RTP period. Also includes a portion of debt bonded against forecasted TCA toll revenues in Orange County.

When compared to the 1998 RTP (1995-2020), estimated Baseline costs have substantially increased. As can be seen in Table 6.3, the Region's Baseline costs have increased over 50 percent. This increase results from a more comprehensive evaluation of each of the itemized expenditure categories and recognition that maintenance expenditures inevitably increase to keep pace with accelerating needs. Many cities, subregions and transit operators questioned the operations and maintenance cost estimates for the 1998 RTP, believing that ongoing operations and maintenance cost were underestimated. Therefore, in adopting the 1998 RTP, the Regional Council requested that this concern be addressed in the next update to the Plan. The 2001 RTP attempts to respond to this request by providing a more complete cost assessment for maintaining the Region's existing transportation infrastructure.

TRANSPORTATION MODE SPLIT OF BASELINE COSTS

Figures 6.2 through 6.4 characterize the transportation mode split for the Region based upon public expenditures.⁷ Figure 6.2 outlines Baseline mode split (note that ITS, TDM and Non-Motorized category constitutes less than 1% of total costs and is not reflected here). Figure 6.3 provides the mode split of new RTP projects, and Figure 6.4 combines Baseline and new RTP projects. Figure 6.5 includes both public and private costs⁸ (note: Hwy category includes truck lanes and arterial category includes grade crossings). The Technical Appendix provides further mode split analysis by county.⁹

Figure 6.2

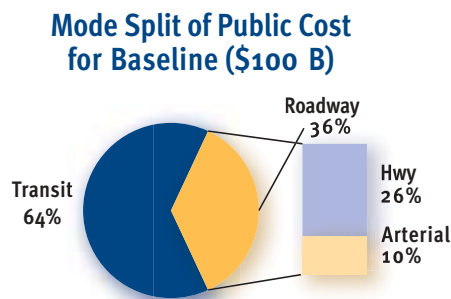


Figure 6.3

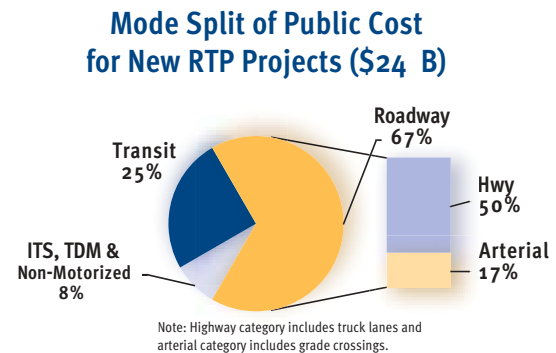


Figure 6.4

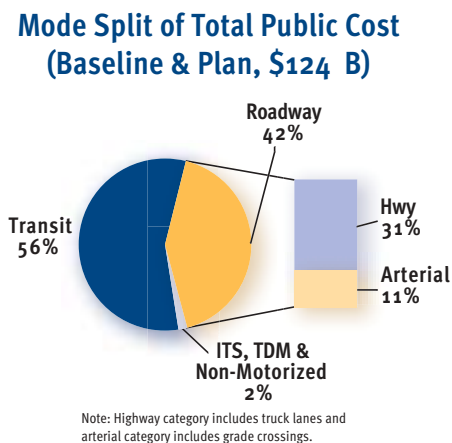
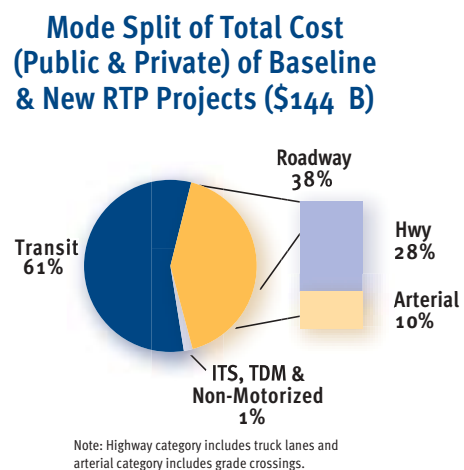


Figure 6.5



FUNDING SHORTFALL

To further assess the Region's financial outlook, the Baseline revenues were matched against Baseline expenditures in the form of a Regional Checkbook. As the Net Balance column in Table 6.4 illustrates, the Region would have to devise a financial strategy to support the cost of new RTP projects.

New RTP projects are estimated to cost \$44 billion. SCAG anticipates the implementation of innovative financing strategies to offset about \$20 billion of the total cost. The remaining \$24 billion would require identifying additional public revenues.

Table 6.4

2001 RTP REGIONAL CHECKBOOK BY COUNTY						
County	Baseline Revenues	Baseline Costs	Net Balance	Public Cost of New RTP Projects	Funding Shortfall	Public Funding Strategy
Imperial	\$0.78	\$0.64	\$0.14	\$0.38	\$(0.24)	\$0.24
Los Angeles	\$65.27	\$66.37	\$(1.09)	\$9.46	\$(10.55)	\$10.55
Orange	\$17.49	\$17.02	\$0.46	\$3.94	\$(3.47)	\$3.47
Riverside	\$5.91	\$6.10	\$(0.19)	\$4.20	\$(4.39)	\$4.39
San Bernardino	\$8.01	\$7.71	\$0.30	\$5.20	\$(4.90)	\$4.90
Ventura	\$2.49	\$2.30	\$0.19	\$1.15	\$(0.96)	\$0.96
Total	\$99.96	\$100.14	\$(0.18)	\$24.33	\$(24.51)	\$24.51

Notes:

- (1) Numbers may not add correctly due to rounding.
- (2) Includes revenues from the Governor's Traffic Congestion Relief Plan. Local gas tax subventions are not included in the revenue forecast, assuming that the subventions are not used for "regionally significant" projects. The EPA's use of the term "regionally significant" is intended to include those transportation projects that would have significant impacts on regional travel, emissions and air quality.
- (3) Baseline costs include current TIP (2001-2006) capital projects that are "regionally significant." Traffic Congestion Relief Plan projects are also included. Additionally, committed sales tax revenues and funds from other sources for Measure projects are included. Measure tax project costs are spread between "pay as you go" financing and debt financing. Includes anticipated new debt service issues during the RTP period. Also includes debt bonded against forecasted TCA toll revenues in Orange County. Also included are Operations and Maintenance expenses for both transit and roads, Caltrans 2000 SHOPP and transit capital replacement/rehabilitation. Forecasted transit and roadway O&M and capital replacement are assumed for the existing SCAG regional transportation infrastructure and new capital projects in the 2001/2006 RTIP. See Technical Appendix for further information.
- (4) Revenues and costs are in constant 1997 dollars, millions.
- (5) The Region's public funding strategy does not assume the extension of Measure M in Orange County nor the imposition of a local transportation sales tax in Ventura County.

GUIDING FRAMEWORK FOR RECOMMENDATIONS TO ADDRESS THE REGION'S FUNDING SHORTFALL

Despite the additional funding provided by recent state initiatives, including the Governor's Traffic Congestion Relief Plan (TCRP), SCAG forecasts funding shortfalls over the 2001 RTP period. As discussed earlier, factors including the expiration of local sales tax measures; declining gas tax revenues due to inflation, fuel efficiency and alternative fuel vehicles; and increasing maintenance/rehabilitation costs, account for the Region's financial predicament.

The SCAG Region would have to develop a financing strategy as a means to move forward with new RTP projects. Given the potential revenue shortfall, the Region would not be able to provide capacity enhancements beyond the short-term commitments.

FEDERAL POLICIES CONCERNING FUNDING STRATEGIES

Federal policies require the use of revenue sources that are "reasonably expected to be available." The regulations further indicate that "proposed new revenues and /or new revenue sources to cover shortfalls shall be identified, including strategies for ensuring their availability for proposed investments."

Federal policies clearly require caution in formulating funding strategies for the RTP, but they do not preclude the introduction of new revenues or new revenue sources. Although SCAG does not identify new revenue "sources" to support the Region's proposed investments, certain assumptions are made to maintain revenue that the Region could potentially lose in the years to come. In devising these assumptions, and, in turn, SCAG's funding strategy, two primary objectives were considered by the Finance Task Force:

1. The strategy should provide sufficient revenue to fund the program of projects in the RTP.
2. The strategy should provide sufficient revenue to fund high priority projects that ensure that the Region will remain in compliance with air quality conformity requirements.

STATE POLICIES CONCERNING FUNDING STRATEGIES

The State of California has established policies governing the preparation of the Regional Transportation Plan as well. These policies were formulated in Senate Bill 45 (Chapter 622, Statutes of 1997) and in guidelines adopted by the California Transportation Commission. In regard to the funding element of the Plan, state policies are similar to federal policy in that the Plan's financial policies must be constrained and represent a "realistic projection of the available revenues." The Plan is permitted by the state to include new funding consistent with its overall policies and program of investments.

Another feature of state policy that influences the Plan's funding strategy is the California Air Resources Board's (CARB) policies encouraging significant market penetration of alternative fuel vehicles and the State Implementation Plan's (SIP) emissions budget for the South Coast Air Basin. This policy is expected to be implemented during the period covered by the Plan. In light of this policy, the Finance Task Force recognized that the funding strategy should include a mechanism to offset the likely decline in gas tax revenues due to the emergence of alternative fuel vehicles.

SCAG'S GUIDING PRINCIPLES FOR DEVELOPMENT OF FUNDING STRATEGIES

To facilitate the development of the Plan's funding strategy, the Finance Task Force and the Transportation and Communications Committee adopted a set of principles. The adopted principles are as follows:

1. Ensure that local/regional control is maintained over the decision-making associated with expending the revenues.
2. Rely on the system's users and other direct beneficiaries, in proportion to their impact, to finance a portion of the cost for the facilities and services they require.
3. Provide for flexibility in how the funds may be used to ensure that the highest performing projects will be constructed.
4. Provide for a series of funding options that, in combination, will promote equity in the distribution of benefits and burdens.
5. Advance project planning, design and construction of those projects which ensure that the SCAG Region remains in compliance with air quality conformity requirements.

RECOMMENDED FUNDING STRATEGIES TO IMPLEMENT SCAG'S REGIONAL TRANSPORTATION PLAN

Within the framework of the aforementioned objectives and guiding principles, the Finance Task Force, along with various other SCAG committees, engaged in extensive debates concerning the adequacy and feasibility of various revenue options available to respond to the Region's funding deficit. Among the options considered were road impact fees and fees based on miles traveled. Although these options would generate varying degrees of revenues for the Region, many of SCAG's policy-makers did not favor their implementation, citing technical and political obstacles. However, two broad categories were selected as the basis of the funding strategy: Innovative Financing and Public Funding.

INNOVATIVE FINANCING

Innovative federal funding programs were reviewed for the Region. The Finance Task Force recognized that these federal programs could potentially accelerate important projects in the SCAG Region, reduce inflationary costs and leverage private capital.¹⁰ From the review, the Task Force concluded that financing mechanisms such as Grant Anticipation Revenue Vehicles (GARVEE bonds) and the Transportation Infrastructure Finance and Innovation Act (TIFIA loans) could be utilized as part of a specific project-financing package as candidate RTP projects are identified and programmed.

Some projects have already been identified as being candidates for innovative financing mechanisms. SCAG's proposed SR-60 truck lane project, for example, assumes the imposition of tolls on trucks that use the facility. To raise construction funds totaling about \$4.3 billion (in 2000 \$ [\$3.9 in 1997 \$]), net revenues from the tolls would be leveraged to issue bonds. It is assumed, however, that net toll revenues alone would be insufficient to fund the construction of the truck lanes.¹¹ In fact, it is estimated that toll revenues would provide roughly 30 percent of the project cost. Local, state and federal grants would cover the resulting funding gap. Additionally, GARVEE bonds would be issued to accelerate project construction.

SCAG also assumes the use of innovative public-private partnership for its high speed Maglev project. While the cost of the system is estimated to be \$16 billion (in 1997 \$), SCAG anticipates that the majority of funds to offset the expenses would be from private sources. The project would be supported by a combination of revenue-backed bonds and loans—in particular, TIFIA loans. Assuming high ridership levels, the project is expected to generate a positive cash flow to cover any outstanding debt service in addition to operating expenses. SCAG also assumes a one-time federal grant contribution of \$950 million.¹²

PUBLIC FUNDING STRATEGY

In addition to identifying projects that may be eligible for innovative federal funding, the Finance Task Force further reviewed current transportation funding sources in the Region. This entailed examining a number of revenue sources at the federal, state and local levels of government.¹³ The Task Force identified two major funding sources at the state and local levels, namely the fuel tax and the sales tax that generate sufficient revenues to support a regional funding strategy. In an effort to maintain revenues from these current sources (which are expected to decline and /or expire in the future years), the Finance Task Force developed and adopted the following public funding strategy:

1. Continue using state gasoline sales tax revenues for transportation purposes (extending the TCRP funding program beyond 2006).
2. Continue local sales tax measures for transportation where necessary.
3. Adjust the state motor vehicle fuel excise tax rate and user-fees to maintain historical purchasing power (pursue further study).

Inflation continues to diminish the purchasing power of state motor vehicle fuel excise tax revenues. This last component of the public funding strategy would adjust the tax rate in order to offset this continued erosion. Also, this component would include the option of implementing a revenue raising mechanism on alternative fuel vehicles, as the need arises. Indeed, pursuing such measures requires extensive education and outreach. Accordingly, SCAG recognizes the need for further comprehensive studies.





Continue Using Revenues from the State Sales Tax on Gasoline for Transportation Purposes

In 2000, the Legislature enacted the Traffic Congestion Relief Program (TCRP) under SB 406 (Ortiz), SB 1662 (Burton) and AB 2928 (Torlakson). This program commits approximately \$8.2 billion in new transportation funding statewide over six years. Of this total, approximately \$5 billion will fund specific TCRP projects. The remaining \$3.2 billion is for local streets and roads, public transit and for STIP projects.

During fiscal year 2000-01, the Program appropriates \$500 million from state gasoline tax revenues and \$1.5 billion from other General Fund revenue sources to transportation. For the five year-period thereafter (annually from 2001-02 through 2005-06), the state portion of gasoline sales tax revenues that were previously deposited into the General Fund will be dedicated to transportation. This amount is estimated to be about \$1 billion annually.¹⁴

SCAG's public funding strategy includes extending this transfer of the state share of gasoline sales tax revenues from the General Fund to transportation. In doing so, the SCAG Region would receive approximately \$6 billion in additional revenue through the 2001 RTP period. For the 2001 state legislative session, SCAG has introduced AB 227 (Longville) in order to make permanent the use of the state sales tax revenues from gasoline for transportation investments.

Continue Local Sales Tax Measure for Transportation

Local transportation sales taxes originally imposed by majority vote in four counties—Imperial, Orange, Riverside and San Bernardino—are scheduled to sunset during the next ten years. Currently, Ventura County does not impose a local transportation sales tax and Los Angeles County has two permanent local taxes. The counties are subject to Proposition 218 in accordance with a California Supreme Court decision, which requires a two-thirds voter approval for the imposition, extension or increase of “special” taxes by a local government.

In recognizing the difficulty many of these counties would have in passing local sales tax initiatives due to the two-thirds voter approval requirement, the Baseline revenue forecast initially included the assumption that these local ($\frac{1}{2}$ percent) sales taxes would expire. In addition, it was assumed that Ventura County would not impose such a sales tax.

Consequently, some of SCAG's legislative efforts focused on supporting initiatives to establish a less than two-thirds vote process for extending and/or imposing local sales taxes. Although recent legislation to authorize or extend the local sales tax with a less than two-thirds voter approval was not enacted, SCAG's various task forces, including the Finance Task Force, believe that removing this constraint during the period covered by the 2001 RTP is not unreasonable.

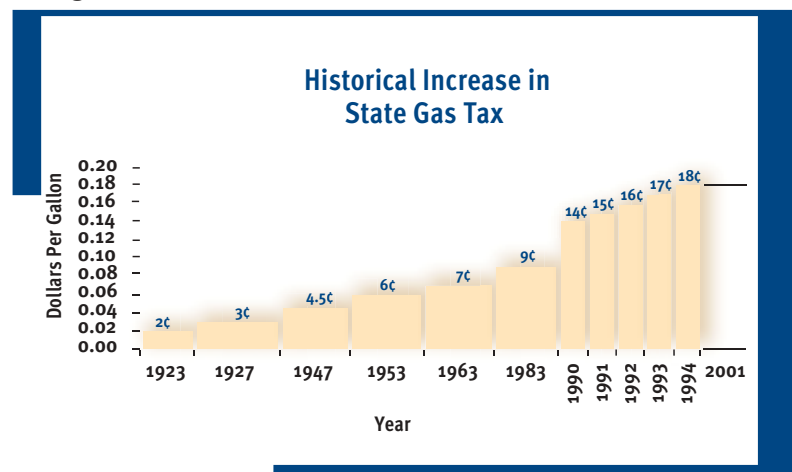
Of the four counties with existing transportation sales taxes, three—Imperial, Riverside and San Bernardino—are assumed to continue the existing taxes. Currently, Orange County anticipates the construction of proposed RTP projects without extending Measure M. Additionally, Ventura County does not have any immediate plans to pursue a local

transportation sales tax. The Region would recognize about \$3 billion (1997 \$) in additional revenues from the extension of the local sales taxes in the three counties where they are expected to continue. SCAG continues to work with local and county transportation planning agencies to pursue extensions of local sales tax measures. In light of recent passage of $\frac{1}{2}$ percent sales taxes by more than two-thirds vote in both Santa Clara and Alameda counties (in Northern California), SCAG maintains that assumptions about extensions are reasonable. This is especially true of Riverside County, where Measure A passed by 78.9 percent voter approval in 1988. SCAG recognizes the need to further educate the general public about the importance of these local sales tax measures for transportation. A coordinated education and public outreach program throughout the Region is critical to extending these local measures.

Adjust the State Motor Vehicle Fuel Excise Tax Rate and User-Fees to Maintain Historical Purchasing Power

State transportation revenues are collected primarily from the state motor vehicle fuel excise tax. The current state fuel excise tax was last increased between 1990 and 1994 when it was doubled from 9 cents to 18 cents per gallon. If an assumption were made that the legislature would provide for a similar increase sixteen years later in 2010, the revenue stream for the RTP would be enhanced. As a matter of historical reference, the gas tax was first imposed at 2 cents per gallon in 1923. Subsequently, the tax rate increased as shown in Figure 6.6. In light of past legislative actions to adjust the tax rate, it is reasonable to assume further rate adjustments during the 2001 RTP time horizon.

Figure 6.6



With the re-authorization of the federal transportation legislation scheduled for 2004 and the implementation of Governor Davis' Traffic Congestion Relief Program, a fuel tax adjustment is reasonable to assume. The Finance Task Force, in coordination with other SCAG committees, approved moving forward with efforts to increase the 18-cent per gallon state fuel tax by five cents in 2010, and by one cent annually from 2011 to 2015. This adjustment amounts to a total of 10 cents. SCAG anticipates that the fuel tax adjustment would generate about \$15 billion through 2025 (in 1997 \$).

An alternative to a statewide increase in the fuel tax would be to secure authorization for a regional fuel tax, similar to the authorization obtained by the San Francisco region. A regional fuel tax, under current constitutional provisions, would require a two-thirds vote of the regional electorate to be implemented. If the levy were characterized as a user fee, however, the Region might be able to bypass the two-thirds vote requirement.

This fuel component of SCAG's public funding strategy would seek to offset the decline in gasoline tax revenues from inflation, fuel efficiency and alternative fuels. It would include the option to further study the implementation of a revenue raising mechanism on alternative fuel vehicles should the market penetration rate of such vehicles be substantial.

It is clearly important to understand that the Region's transportation revenue estimates are affected by the actual market penetration rate of alternative fuel and fuel efficient vehicles over the Plan period. If the penetration rate remains very low, the gasoline tax revenue loss would be minimal, consistent with the 2 to 5 percent currently projected by the California Air Resources Board.

Although there is no consensus on how such a revenue-collection mechanism on alternative fuels would be implemented, SCAG estimated the additional revenues that could be raised from an alternative fuels tax that would be equivalent to the existing state excise gas tax of 18 cents per gallon beginning in 2010. Given this assumption, the SCAG Region would recognize an additional \$8 billion in transportation revenues. Although SCAG assumed a gasoline tax equivalent rate for alternative fuels in assessing generated revenues, the rate could be lower—perhaps just enough to offset roadway damage proportional to use.

FUNDING COMPONENTS

Table 6.5 itemizes the funds generated from each component. The components, taken together, make up the Region's public funding strategy in developing a financially feasible and comprehensive 2001 RTP.

Table 6.5

2001 RTP PUBLIC FUNDING STRATEGY (CONSTANT 1997 \$ IN BILLIONS)	
Funding Component	\$
Continue Using Revenues from the State Sales Tax on Gasoline	6
Continue Local Transportation Sales Taxes Where Necessary	3
Adjust State Motor Vehicle Fuel Excise Tax and User-Fees to Maintain Historical Purchasing Power	15
Total	24

SCAG'S REGIONAL CHECKBOOK

The comparison of the checkbook scenarios “WITH Public Funding Strategy” and “WITHOUT Public Funding Strategy” depicts the importance of maintaining revenue sources that the Region may lose in the coming years. The SCAG Region’s public funding strategy generates an estimated \$24 billion throughout the 2001 RTP period. These revenues would be used to offset the public cost of new RTP projects.

Table 6.6

2001 RTP REGIONAL CHECKBOOK CONSTANT 1997 DOLLARS (IN BILLIONS)		
	WITHOUT Public Funding Strategy	WITH Public Funding Strategy
Baseline Revenues (1)	\$100	\$100
Additional Revenues (2)	\$0	\$24
Total Baseline Costs (3)	\$100	\$100
Net Available Revenues for RTP	\$0	\$24

Notes:

- (1) Includes traditional revenue sources for transportation such as local, state and federal funds. Innovative funding revenues and private sector contributions are not included.
- (2) Includes public funding strategy: assume continuation of local sales tax; assume continuation of general fund appropriations from the state sales tax on gasoline (ext. Governor’s transportation funding program beyond 2006); and adjust the state motor vehicle fuel excise tax and user-fees to maintain historical purchasing power.
- (3) Includes costs to build short-term committed projects and to operate and maintain the existing transportation system during the RTP period. New RTP capital project costs are not included.

ACTION PLAN FOR IMPLEMENTING FUNDING STRATEGY

To realize this program of funding, several activities must be undertaken, some almost immediately. The following provides a list of some actions to be taken:

Milestone	Action	Years
1.	Create a committee of Regional Council members to provide leadership and direction, on a continuing basis, for the overall implementation of the funding program.	2001-2002
2.	Undertake a Region-wide, multiyear public awareness program to familiarize decision makers with the issues being addressed in the RTP and the importance of the funding strategies to regional mobility, economic well-being and the quality of life.	Ongoing
3.	Initiate one-on-one communications with state legislators representing the Region, to explain the long-term transportation requirements of the Region and the funding options needed to address these requirements.	Ongoing
4.	Create a regional partnership involving SCAG, the County Transportation Commissions, the subregions and private interests to advocate the implementation of the funding strategies.	2001-2002

SCAG believes that these four elements provide the framework for a multiyear implementation program. The funding components of the program would likely be implemented over the next five to ten years and would require the formation of coalitions both within the Southern California Region and throughout the state. Each funding proposal has its own set of conditions that will influence implementation. Recognizing this, SCAG proposes the following action:

1. **Join with the “self-help” counties and other groups to obtain authorization for a less than two-thirds vote requirement to continue the local transportation sales tax programs.** Local sales taxes have become a central feature of transportation funding over the last two decades in the SCAG Region and elsewhere in California. Since the mid-eighties, \$5.5 billion has been raised for transportation projects and services in the four counties in the Region that have sales taxes scheduled to expire in the next ten years. Other counties in California are encountering similar deadlines, making this a statewide issue. It should be noted that despite the existing two-thirds vote requirement, some counties in the SCAG Region are planning to pursue reauthorization of their respective sales taxes. Pursuing reauthorization would entail a series of important actions including:

Milestone	Action(s)
1.	Establish Measure Renewal Committee
2.	Campaign Finance
3.	Marketing/Public Awareness
4.	Surveys
5.	Expenditure Plan
6.	Local Consensus
7.	Ballot Measure by County CTC/Extension of Local Sales Tax

2. Continue using revenues from the state sales tax on gasoline for transportation purposes.

The Transportation Congestion Relief Program (TCRP) enacted by the Legislature sets aside the revenues received from gasoline sales for annual appropriation to a program of transportation projects, including transit operations, that comprise the TCRP. This is currently scheduled to continue until 2006. Prior to 2006, SCAG should begin informing the public and legislators of the value added to the regional transportation system from the additional revenues provided through the TCRP funding program. In addition, SCAG should jointly form coalitions with interests from throughout California to ensure the continuation of this new funding program. To this end, SCAG has introduced Assembly Bill 227 (Longville), which indefinitely extends the dedication of the sales tax on motor vehicle fuel for transportation purposes. Recently, the Assembly Transportation Committee overwhelmingly approved (vote 17-0) AB 227. A number of organizations, including the League of California Cities, California State Association of Counties and all of the transportation commissions in the SCAG Region, testified in favor of the bill.

Milestone	Action(s)	Year(s)
1.	Develop state/regional consensus	2001-2006
2.	Public education/outreach	2001-2006
3.	AB227 (Longville)	2001-2002
4.	Extension of state sales tax on gasoline	2007

3. Adjust the fuel excise tax rate to maintain historical purchasing power. To ensure adequate revenues for the RTP, SCAG proposes a five-cent gas tax increase in 2010 with an additional penny per year until 2015. By the year 2010, it also will have been about 16 years since the motor vehicle fuel tax was last increased in California. Clearly, there will be a statewide interest in increasing fuel tax revenues to offset the continuing decline in the revenue's purchasing power. An alternative would be to secure authorization for a regional fuel tax, similar to the authorization obtained by the San Francisco region. A regional fuel tax, under current constitutional provisions, would require a two-thirds vote of the regional electorate to be implemented. However, by characterizing the charge as a user fee, the Region may be able to bypass the two-thirds requirement. SCAG is currently pursuing efforts to further study potential decreases in transportation revenues. Assembly Concurrent Resolution 32 (Dutra) requests that the California Transportation Commission (CTC), in consultation with the California Department of Transportation (Caltrans) and regional planning agencies, prepare a study focusing on declining transportation revenues and remedies to address potential funding shortfalls.

Milestone	Action(s)	Year(s)
1.	Introduce ACR 32 (Dutra)	2001
2.	Study of transportation funding	2002-2003
3.	Subsequent revision of the Regional Transportation Plan to develop blue-print program of expenditures	2002-2009
4.	Develop state/regional consensus	2002-2009
5.	Evaluate whether to pursue state or regional fuel tax initiative	2005
6.	Public education/outreach	2002-2009
7.	Introduce legislation	2007-2009
8.	Adjust the state motor vehicle fuel excise tax user-fees (or regional fuel tax alternative)	2010-2015

These milestones need to be pursued aggressively. The adoption of the Plan established the Regional Council's commitment to do so. Monitoring the progression of these actions is also an important part of this Plan to ensure that SCAG can consider creative action as necessary through the course of Plan updating.

AVIATION AND MARITIME FUNDING

There is a significant amount of money funding transportation investments for freight movement that are not traditionally captured in the Regional Checkbook and the RTP. These monies can be both public and private expenditures for port, airport, rail and trucking operations. Projects include capital improvements, minor mitigation of traffic-flow impairments and capital maintenance. The dollars do not flow through the State Transportation Improvement Program

Table 6.7

REGIONAL PORTION OF INTERNATIONAL TRADE LOS ANGELES CUSTOM DISTRICT IN MILLIONS						
	Total Exports thru Region	Regional Exports	Percent Regional Exports	Total Imports thru Region	Regional Imports	Percent of Regional Imports
Airports	30,513	19,072	63%	27,658	17,286	62%
Seaports	34,036	15,928	47%	112,201	46,293	41%
Regional Total	64,549	35,000	54%	139,859	63,579	45%

Source: Bureau of the Census, International Trade Administration, 1995

(STIP) but instead result from user/access fees, grant funding, bonding on future revenues and private sources. The ports and airports, supported by rail and trucking, are an engine of growth to the regional economy and result in substantial benefits to the nation.

International trade flowing through regional ports and airports is vital to the local and national economies. As a gateway to the Pacific Rim, the SCAG Region is a trade center producing and using goods, as well as a transshipment center for goods going to and coming from other areas of the country. Of merchandise exports, it is estimated that 54 percent are regionally produced and 45 percent are transshipped, as shown in Table 6.7. Regionally produced goods account for approximately 6 percent of the nation's exports. The volume of international trade is expected to double within the next 25 years as trade borders continue to open and global markets expand.



Major airports in the SCAG Region derive operating revenues from landing fees, leasing space and facilities, terminal rentals, interest and passenger facility charges. Federal Aviation Administration capital grants and bonding on the revenue stream provide additional monies. These funds pay for airport improvements (e.g., maintaining and repairing runways, taxiways, hangars), plants and equipment, operations (providing security and administration) and on-site circulation and parking, but only limited ground access improvements.

Revenue for projects at the three principal seaports is obtained by bonding against shipping container fees, lease fees and other revenues paid by tenants and other customers. Similar to the airports, seaports fund all on-site improvements. However, the ability of airports and seaports to pay for off-site access improvements is limited by law and by available funds. For example, the current Port of Long Beach debt from transportation infrastructure results in payments for debt service that equal 34 percent of port revenues. The level of debt in ten years will be \$2.5 billion, after constructing proposed terminal and rail projects, requiring 60 percent of port revenues for debt service.

Ground access improvements will be critical for the flow of goods to and from airports and seaports. The magnitude of these needs clearly surpasses the ability of the Region to pay for them. A revenue strategy must be identified to fund ground access improvements to ensure that the barriers to and the impacts of Goods Movement (e.g., noise, congestion, safety) are reduced.

CONCLUSION

Clearly, SCAG's Region-wide forecast of revenues and costs reflects the need to develop a funding strategy as a means to maintain and expand the existing transportation system. It is evident that without developing new mechanisms for generating additional revenue, the Region would not be able to accommodate population growth and the subsequent increase in travel demand.

In response to such a need, the SCAG Region's funding strategy provides sufficient revenues to support the mobility improvements recommended in the RTP and ensure conformity. Additionally, the inclusion of a sequence of actions provides a defensible strategy for realizing the revenue sources.



VII.

plan performance

This section describes, in general terms, how the 2001 RTP meets the performance goals and objectives described earlier in the document.

REGIONAL PERFORMANCE GOALS AND OBJECTIVES

MOBILITY AND ACCESSIBILITY

The 2001 RTP's performance in terms of mobility and accessibility is depicted in Table 7.1. Mobility is measured primarily in terms of work trip travel time, PM peak freeway and non-freeway speeds and percent PM peak travel in delay for freeways and non-freeways. PM peak time period is chosen as the criteria for evaluation because it typically represents the worst travel condition in any given 24-hour period. Accessibility is measured as percent of jobs accessible within 45 minutes of door-to-door travel time by all modes. Table 7.1 identifies the improvement in mobility and accessibility that results from implementing the Plan over Baseline conditions in 2025.

The 2001 RTP will improve mobility and accessibility benefits significantly over the Baseline condition in 2025. Work trip travel time, PM peak speed and PM peak delay all improve with Plan implementation (see exhibit 7.1). Greater improvement is seen in freeway travel speed and PM peak delay throughout the roadway system, reflecting the investment mix of highway lane miles and strategic arterial projects. Similarly, accessibility to work identifies vast improvement in transit trips, reflecting the substantial investment in transit in the 2001 RTP.

Table 7.1

MOBILITY AND ACCESSIBILITY PERFORMANCE RESULTS	
Performance Indicators	Improvement from 2025 Baseline to 2025 Plan
MOBILITY – Ease of movement of people, goods and services	
Work Trip Travel Time	7%
PM Peak Highway Speed:	
Freeway	15%
Non-Freeway	8%
Percent of PM Peak Travel in Delay:	
Freeway	14%
Non-Freeway	19%
ACCESSIBILITY – Ease of reaching opportunities as measured by the percent of commuters who can get to work within 45 minutes door-to-door travel time	
Increased Work Trips within:	
45 minutes by Auto	3%
45 minutes by Transit	48%

RELIABILITY AND SAFETY

Reliability is analyzed for transit and highway separately. Reliability for transit is simply on-time performance of the service. Reliability for highway is defined as the probability of reaching a destination within the time that it would take to travel under normal flow speed. Safety analysis is provided only for fatal and injury accidents for all modes. As shown by the analysis, the Plan does represent an improvement over the Baseline (Table 7.2).

Table 7.2

RELIABILITY AND SAFETY PERFORMANCE RESULTS	
Performance Indicators	Plan Improvement Over Baseline
RELIABILITY – Reasonably dependable levels of service as measured by the percent of on-time arrivals	
Transit	3%
Highway	11%
SAFETY – Transit with minimal risk of accident or injury as measured by reduced accidents	
Fatality Per Million Passenger Miles	0%
Injury Accidents	0%

COST-EFFECTIVENESS/COST-BENEFIT ANALYSIS

The purpose of Cost-Effectiveness / Cost-Benefit Analysis (CBA) is to facilitate a more efficient allocation of society's scarce resources. Because SCAG, like many other Metropolitan Planning Organizations (MPOs) throughout the nation, is faced with the challenge of expanding transportation investment at a time when financial resources are decreasing, both cost-effectiveness and cost-benefit analyses are important.

One component of SCAG's Performance Indicators for the 2001 RTP is a simple cost-effectiveness model. The costs of the 2001 RTP are compared to the benefits in the form of a ratio of one dollar spent for a certain amount of dollar benefits. This ratio is provided in both present-value and 1997 constant dollar terms. As indicated in Table 7.3, for every dollar invested, SCAG's 2001 RTP provides \$2.38 return in present value terms and \$4.44 return in constant dollar terms.

Table 7.3

2001 RTP COST-BENEFIT ANALYSIS				
Project	Costs (in Billions)	Benefits (in Billions)	Net Benefits (in Billions)	Value of One Dollar Invested
2001 RTP (Present Value)	\$ 10.4	\$ 24.7	\$ 14.3	\$ 2.38
2001 RTP (Constant Dollar)	\$ 24.3	\$ 108.0	\$ 83.7	\$ 4.44

In order to obtain constant dollar measures, cost and benefit values were adjusted for changes in inflation, assuming a 3 percent deflation factor and using a base year of 1997. These constant dollar values were further discounted by the real discount rate of an estimated 5 percent in order to obtain the net present value and in turn, the benefit/cost ratio in present-value terms. Present values are utilized to compare benefits and costs in different time periods. This method allows comparison of the current value of what the SCAG Region would receive in benefits over the life of the 2001 RTP if we were to invest in our plan today. The Technical Appendix provides a further discussion concerning the mechanics of discounting.

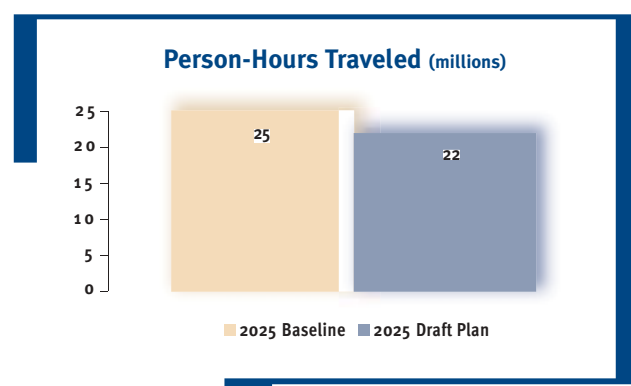
2025 Plan Freeway Congestion



All benefits assessed are mobility-related benefits including delay savings, accident reduction and air quality benefits. Certainly, these effectiveness measures do not capture all of the social benefits of the 2001 RTP. For simplicity, however, these three measures were utilized to assess the 2001 RTP benefits. SCAG derived each effectiveness measure by assessing the difference between the 2025 Baseline and the 2025 Plan. Assumed monetary values for each of these effectiveness measures are further discussed in the Technical Appendix.

In addition to the cost-benefit analysis, Figure 7.1 provides the results of a cost-effectiveness analysis (CEA) in terms of a cost per unit of outcome effectiveness. This CEA does not assume monetary values of benefits; rather, it involves two different metrics: cost in constant dollars and an effectiveness measure. In this case, the effectiveness measure is the difference in person-hours traveled (PHT) between the 2025 Baseline and the 2025 Plan. A ratio in the form of cost/effectiveness (C/E) is calculated based upon the change in person hours traveled (see Figure 7.1). Accordingly, CEA results indicate that it costs \$2.83 to reduce each person-hour traveled.

Figure 7.1



ECONOMIC IMPACTS

The SCAG IMPLAN Input-Output Model considers a full range of economic impacts through inter-industry interactions and household activities. The major elements of the 2001 RTP that will affect the economy are expenditures, revenue sources (in terms of taxes collected), transportation quality improvements, auto operating and maintenance costs, accidents and air quality improvements. The impacts of the RTP expenditures were estimated using the IMPLAN model and are presented in Table 7.4. The analysis of the other RTP impacts is included in the Technical Appendix.

The Region is expected to gain an annual average of 16,000 jobs from the implementation of public-sector funded infrastructure projects recommended in the 2001 RTP. Privately funded projects recommended in the 2001 RTP would add 12,000 jobs annually during the planning period. While there may be some negative economic impact from these new tolls, they are expected to be largely offset by improved mobility of persons and goods.

To put these employment impacts into perspective, the current Final 2001 RTP Socioeconomic Forecast shows that the SCAG Region will add 106,500 jobs annually during the 1997–2025 period. The job impacts from public-sector RTP-funded projects will account for just 16 percent of this job growth. Equally significant, employment impacts from private-sector funded investment will boost regional annual average job growth by 11 percent—to 1.7 percent per year—up from 1.53 percent under the current forecast.

Table 7.4

AVERAGE ANNUAL ECONOMIC IMPACTS OF 2001 RTP PUBLIC & PRIVATE-SECTOR FUNDED PROJECTS DIRECT, INDIRECT AND INDUCED IMPACTS			
	Jobs	Output	Value Added
Public Sector	16,587	\$ 1.5 billion	\$775,003,268
Private Sector	11,991	\$ 1.3 billion	\$606,679,640

At the Regional level, the SCAG region IMPLAN input-output model provides data on direct, indirect and induced impacts on regional output and value added resulting from public and private funded investments. The investment in public-funded projects totals \$24 billion over the 28-year period of the Plan. This investment is expected to result in a total annual average output of \$1.5 billion and annual value added of \$775 million. The 2001 RTP includes a total of \$20 billion in private investment. This investment is expected to result in a total average annual output of \$1.3 billion and value added of \$607 million.

TRANSPORTATION CONFORMITY ANALYSIS AND FINDINGS

Under EPA's Transportation Conformity Rule requirements, SCAG's 2001 RTP needs to pass four tests: 1) the Regional Emission Analysis; 2) the Timely Implementation of TCMs; 3) the Financial Constraint Determination and 4) Interagency Consultation and Public Involvement.

REGIONAL EMISSIONS ANALYSIS

EPA's Transportation Conformity Rule requires that the 2001 RTP regional emissions be consistent with the motor vehicle emissions budgets in the applicable SIPs. Consistency with emissions budgets must be demonstrated for each year for which the applicable emissions budgets are established, for the transportation planning horizon year and for any milestone years as necessary, so that the years for which consistency is demonstrated are no more than ten years apart.

The 2001 RTP regional emissions analyses must meet all of the following requirements for conformity finding:

- ▶ For the budget test, the regional emissions must be equal to or less than the emissions budgets.
- ▶ For the PM₁₀ build/no-build test, the build scenario's emissions must be less than the no-build scenario's emissions.
- ▶ For the Ozone or CO build/no-build test, the build scenario's emissions must be less than the no-build scenario's emissions; additionally, the future year emissions must be less than the 1990 base year emissions.

The build scenario means implementing the RTP and the no-build scenario means not implementing the RTP.

A summary of the regional emissions analysis is reflected in Table 7.5.

Table 7.5

SUMMARY OF REGIONAL EMISSIONS ANALYSES						
OZONE EMISSIONS ANALYSIS (TONS/DAY)—SUMMER TEMPERATURES—SCAB (EXCLUDING BANNING PASS)						
Ozone Precursor	2002	2005	2008	2010	2020	2025
ROG (VOC)	Budget	273.10	206.03	145.35	80.73	80.73
	2001 RTP	269.50	201.74	143.90	80.31	46.31
NO _x	Budget	447.12	369.12	310.08	277.77	277.77
	2001 RTP	446.26	360.17	284.06	249.64	237.92

Regional emissions budget generated using EMFAC 7G. To pass, RTP emissions must be equal to or less than budget.

NO _x EMISSIONS ANALYSIS (TONS/DAY)—WINTER TEMPERATURES—SCAB (EXCLUDING BANNING PASS)					
NO ₂ Precursor	1994	2000	2010	2020	2025
NO _x	Budget	657.30	657.30	657.30	657.30
	2001 RTP	--	--	379.91	359.94

Regional emissions generated using EMFAC 7G. To pass, RTP emissions must be equal to or less than budget.

CO (TONS/DAY)—WINTER TEMPERATURES—SCAB (EXCLUDING BANNING PASS)					
CO	1990	2000	2010	2020	2025
Build	--	--	1,851.30	1,510.01	1,515.62
No-Build	7,380.76	3,464.84	1,881.34	1,587.99	1,623.35

Regional emissions generated using EMFAC 7G. To pass, build emissions must be less than no build and 1990.

PM ₁₀ (TONS/DAY)—ANNUAL AVERAGE TEMPERATURE—SCAB (EXCLUDING BANNING PASS)						
PM ₁₀ Precursor	1990	2000	2006	2010	2020	2025
ROG (VOC)	861.38	351.85	228.24	145.83	91.99	86.40
NO _x	889.73	565.50	448.64	370.73	352.28	358.43
To pass, the future year emissions must be less than 1990.						
Primary Particulate Matter	1990	2000	2006	2010	2020	2025
Build	--	--	215.526	230.218	264.486	276.830
No-Build	--	190.718	215.674	232.311	272.268	287.815

Regional emissions generated using EMFAC 7G. To pass, build emissions must be less than no build and 1990. The roadway construction related PM₁₀ emissions were included in the regional emission analysis.

Table 7.5 (continued)

OZONE (TONS/DAY)—SUMMER TEMPERATURES—SCCAB – VENTURA COUNTY							
Ozone Precursor		1999	2002	2005	2010	2020	2025
ROG (VOC)	Budget	16.2	12.47	9.82	9.82	9.82	9.82
	2001 RTP	--	11.58	9.65	6.04	4.86	3.20
NOx	Budget	27.04	24.36	21.33	21.33	21.33	21.33
	2001 RTP	--	22.78	19.13	13.47	13.91	13.42

Regional emissions generated using EMFAC 7G. To pass, RTP emission must be equal to or less than budget.

PM ₁₀ (TONS/DAY)—ANNUAL AVERAGE TEMPERATURES—MDAB (SAN BERNARDINO COUNTY – EXCLUDING SEARLES VALLEY)				
	2000	2010	2020	2025
Build	--	16.068	20.607	22.268
No-build	--	16.104	21.001	23.052

Regional emissions generated using EMFAC 7F. To pass, build emission must be less than no-build and 1990. The roadway construction related PM₁₀ emissions were included in the regional emission analysis.

OZONE (TONS/DAY)—SUMMER TEMPERATURES—MDAB/SSAB *—(SOUTHEAST DESERT MODIFIED AREA)							
MDAB	SSAB (*)	2002	2005	2007	2010	2020	2025
ROG	Budget	31.07	26.45	23.31	23.31	23.31	23.31
	2001 RTP	18.77	16.20	14.20	11.57	10.70	7.84
NOx	Budget	65.79	57.06	54.82	54.82	54.82	54.82
	2001 RTP	45.24	40.20	37.72	34.19	40.84	40.66

Regional emissions generated using EMFAC 7F. To pass, RTP emission must be equal to or less than budget.

*Note: This federally designated Ozone non-attainment area covers three separate but contiguous areas: the Antelope Valley portion of MDAB, the San Bernardino County portion of MDAB and the Coachella Valley (including Banning Pass) portion of SSAB. The conformity analyses for NO_x and ROG are based on comparing SCAG's regional transportation emissions with the combined budgets of the three parts. The Coachella Valley and Antelope Valley emissions budgets are reflected in SCAQMD's 1994 AQMPs/SIPs and the San Bernardino County emissions budgets are reflected in the MDAQMD 1994 AQMP/SIP.

PM10 (TONS/DAY)—ANNUAL AVERAGE TEMPERATURES RIVERSIDE COUNTY (COACHELLA VALLEY INCLUDING BANNING PASS) SSAB				
PM10	2000	2010	2020	2025
Build	--	11.288	15.915	17.464
No-build	--	11.368	16.142	17.778

Regional emissions generated using EMFAC 7F. To pass, build emission must be less than no-build.

OZONE (TONS/DAY) SUMMER TEMPERATURES IMPERIAL COUNTY						
SSAB /	(Imperial)	1990	2000	2010	2020	2025
ROG	Build	--	--	4.864	4.038	4.265
	No-build	--	--	4.965	4.142	4.436
NOx	Build	--	--	14.644	16.763	17.913
	No-build	--	--	14.843	16.953	18.228

Regional emissions generated using EMFAC 7F. To pass, build emission must be less than the 1990 base year or the no-build.

PM10 (TONS/DAY) ANNUAL AVERAGE TEMPERATURES IMPERIAL COUNTY				
PM10	2000	2010	2020	2025
Build	--	9.358	11.918	13.560
No-build	--	9.794	13.066	14.938

Regional emissions generated using EMFAC 7F. To pass, build emission must be less than no-build.

CONFORMITY DETERMINATIONS AND FINDINGS

Regional Emissions Test

SCAG has determined the following conformity findings for the 2001 RTP under the required federal tests:

- ▶ SCAG's RTP regional emissions for Ozone precursors are consistent with all applicable emissions budgets for all milestone, attainment and planning horizon years for the following areas:
 - SCAB; the 1997 (amended 1999) Ozone SIP
 - SCCAB (Ventura County); the 1994 Ozone SIP
 - MDAB (Antelope Valley and San Bernardino County)/SSAB (Coachella Valley – including Banning Pass); the 1994 Ozone SIP
- ▶ SCAG's 2001 RTP regional emissions for NOx precursor are consistent with all applicable emissions budgets for all milestone, attainment and planning horizon years for the SCAB (the 1997 NO SIP).
- ▶ SCAG's 2001 RTP regional emissions (build scenarios) for the CO are less than no-build emissions and the future years are less than the 1990 base year emission for all milestone, attainment and planning horizon years.
- ▶ SCAG's 2001 RTP regional emissions (build scenarios) for the PM10 are less than the no-build emission for the following areas:
 - SSAB (Coachella Valley – including Banning Pass)
 - MDAB (San Bernardino County – excluding Searles Valley)

Timely Implementation of TCM Test

SCAG has determined that the TCM1 project categories listed in the 1999 Ozone SIP/AQMP for the SCAB are given funding priority and are on schedule for implementation.

SCAG has determined that the TCM strategies listed in the 1994 Ozone SIP/AQMP for the VC/SCCAB are given funding priority and are on schedule for implementation.

Financial Constraint Test

SCAG has determined that all projects and programs listed in the 2001 RTP are financially constrained. Detailed information on the financial analysis is included in the Technical Appendix.

Inter-agency Consultation and Public Involvement Test

SCAG has determined that the 2001 RTP and its associated transportation conformity analysis and finding comply with this federal requirement. All related topics were discussed through various forums such as: Transportation Conformity Working Group, Modeling Task Force, numerous RTP-related (topic-oriented) Task Forces and subregional groups during the past two years. These forums were open to the general public. For the public at large and to obtain input and community feedback, SCAG's Public Outreach Program was used. Detailed information is included in the Technical Appendix.

Additionally, the 2001 RTP and its associated technical appendices (including Transportation Conformity Report) were released in late December 2000 and early January 2001 for the public review and comment period, which ended on March 15, 2001. SCAG responses to the written comments were disseminated on April 2, 2001 and discussed in various forums.

PM₁₀ Construction-related Emissions Analysis

The 2001 RTP provides for the federally required PM₁₀ construction-related emissions analysis. In the SCAG Region, three of five PM₁₀ non-attainment areas are subject to the construction-related fugitive dust emissions analysis. These three areas are: the SCAB, the Coachella Valley portion of SSAB and the San Bernardino County portion (excluding Searles Valley area) of MDAB. The roadway construction - related PM₁₀ emissions were included in the regional emission analysis for these areas.

Transportation Conformity Report

This report provides detailed information on all associated procedures and methods utilized in conformity analyses and findings of the 2001 RTP and is included in the Technical Appendix.

ENVIRONMENTAL JUSTICE

Environmental justice analyses conducted for the 2001 RTP analyzed whether the Plan would result in disproportionate adverse impacts on low-income, minority, elderly or disabled populations in the SCAG Region. These analyses examined the distribution of Plan benefits in terms of improvements in mobility—primarily, travel time savings realized as a result of Plan investments—and accessibility—as measured by the number of jobs reachable within a given time. These benefits were compared with Plan costs—specifically, the burden imposed by the taxes that fund transportation investments: sales, gasoline and to some extent income taxes. Generally, these analyses found that the share of Plan benefits for low-income and minority groups was in line with, or greater than, the costs borne by these groups.

The environmental justice analyses generally showed that the Plan's environmental effects would not fall disproportionately on minorities, the low-income, the elderly or the disabled. This was true for the Plan's projected air pollutant emissions, both for the criteria pollutants analyzed and for air toxics, as represented by heavy-duty vehicle exhaust particulates. This was also the case for highway noise. However, the analysis predicted a continuation of disproportionately high aviation noise impacts on both minority and low-income groups.

The areas analyzed were Plan expenditures, accessibility, congestion (time savings), traffic safety, aviation and highway noise and air quality. Further detail on the analysis data, procedures and results is provided in the Technical Appendix.

DEMOGRAPHICS

In accordance with federal environmental justice guidance, SCAG analyzed the impacts of the RTP on minority and low-income populations in the Region, as well as on the elderly and the disabled. U.S. Census data from 1990 formed the basis of the analysis, with projections made to 2025 by SCAG forecasting staff.¹⁵ "Minority" is defined by federal environmental justice guidance to mean any ethnic or racial group other than white, regardless of numerical presence in the Region (that is, numerical minority or majority).

To analyze impacts on low-income groups, SCAG defined five income groups, each representing one-fifth of the Region's households according to their 1990 Census household incomes. These groups, or fifths, are also called income "quintiles." The first quintile is the lowest fifth of households in terms of annual income; the fifth quintile is the highest fifth in terms of annual income. SCAG also performed analyses with reference to a poverty level defined by federal guidance.

Elderly population was defined as those over the age of 65. The percentage of elderly people in the SCAG Region is projected to rise from about 10 percent in 1997 to over 15 percent in 2025. Disabled and mobility-limited persons were identified using U.S. Census data and were assumed to represent the same percentage in 2025 as in 1990.

PLAN EXPENDITURES

The 2001 RTP calls for substantial private as well as public investments in transportation programs. Data on travel behavior by income group and on Plan investments by travel mode were combined to determine the share of Plan expenditures directly benefiting each of the five income categories. When the public portion of Plan expenditures is

considered, over fifty percent would directly benefit the lowest two income groups, who generally tend to use transit more than higher-income groups (see Figure 7.2).

The lowest income group, representing only 15 percent of the Region's households, would receive the benefit of over 34 percent of the Plan's public expenditures. By contrast, the highest income group, constituting 16 percent of the Region's households, would receive only 15 percent of the Plan's public expenditures.

ACCESSIBILITY

A preliminary analysis was conducted to assess the effects of the 2001 RTP on accessibility to opportunities in the Region, broken down by income and ethnic groups. For this analysis, accessibility to opportunity was defined as the percentage of the Region's jobs accessible within 30 minutes by auto, or within 45 minutes by transit.

The analysis is further subdivided to show accessibility via low-cost transit, such as city bus and light rail, versus accessibility via any type of transit, including higher-cost commuter rail and bus, or potential high-speed rail systems. While the two transit categories do not correspond directly to income groups, one might expect that low-income travelers will tend to choose low-cost transit.

The analysis examined jobs available in the service and retail sectors, which are frequently entry-level jobs, as well as total jobs. Retail and service employment also serve as indicators of accessibility to essential services.

Figure 7.3

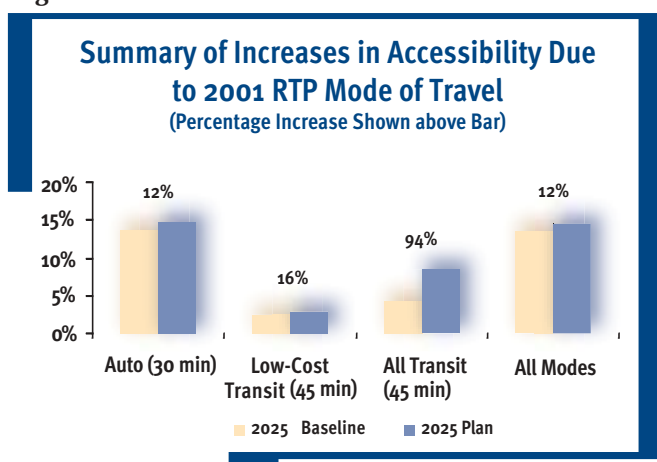
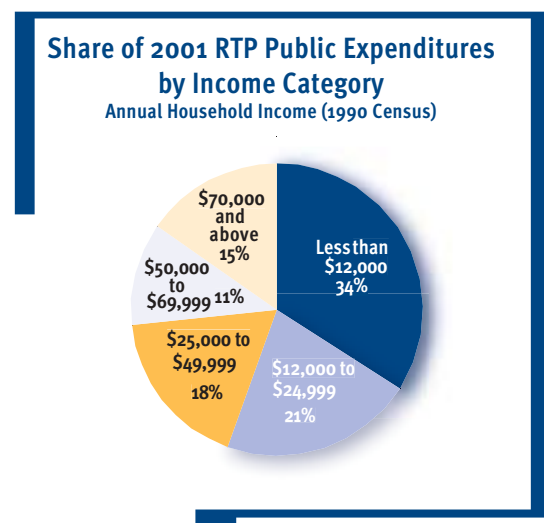


Figure 7.2



The 2001 RTP will improve accessibility to employment and essential services for all people in the Region, regardless of ethnic or income group. The results show that all groups in the Region will benefit to approximately the same extent (roughly 12 percent), when taking advantage of all modes of travel. In other words, the 2001 RTP would generally mean that approximately 12 percent more jobs would be accessible, Region-wide, than if the Plan were not adopted.

Results are better for that small segment of the population that depends on low-cost transit to access jobs and services. This segment—which is likely to belong to the lowest income quintiles—will benefit even more from adoption of the 2001 RTP (see Figure 7.3). Gains in accessibility due to the 2001 RTP for those who are dependent on low-cost transit will average about 16 percent, compared with only 12 percent for the Region as a whole. These gains reflect the new flexibility in local and regional travel that will come from low-fare feeder shuttle buses accompanying the proposed high-speed rail system, as well as other transit system improvements in the Plan.

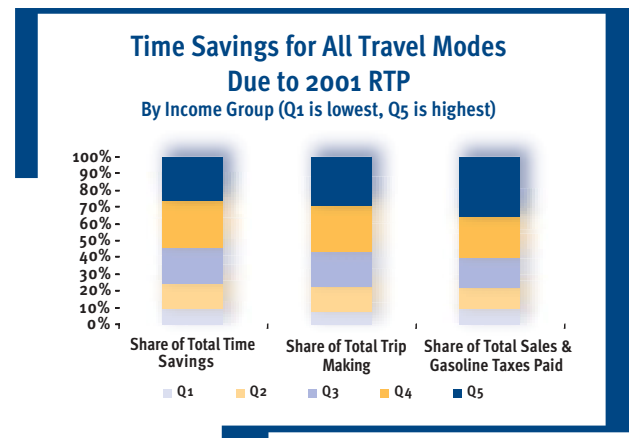
However, it should be noted that the absolute accessibility to jobs for those who are dependent on low-cost transit will still be quite low, only about three percent under the Plan (see Figure 7.3). Those who can take advantage of all forms of transit would enjoy the most dramatic increases in accessibility under the Plan, but still would not enjoy as much accessibility to jobs and services as auto users. SCAG will continue to work to address this difference.

CONGESTION

The 2001 RTP investments will bring about improvements in the level of congestion on roadways and travel time savings for all modes of travel. SCAG analyzed how these time-savings benefits would be distributed among various income and ethnic groups. The analysis also considered the burden of paying for these benefits, in terms of the sales and gasoline taxes that are the primary funding source for transportation system improvements. This analysis was based on SCAG's regional transportation model results, and helps to relate Plan costs directly to Plan benefits for various income and ethnic groups.

Generally, the share of time savings for various income and ethnic groups is similar to the share of trip making by each group, and to the share of transportation-related taxes paid by each group. Figure 7.4 shows that for all travel modes combined, the share of taxes paid by the highest income group is larger than their actual share of time-savings benefits. It also shows that the total time savings for the lowest three income groups slightly outweighs the share of tax burden borne by these groups.

Figure 7.4



The results are similar for the largest ethnic groups in the SCAG Region. The share of taxes paid (and trips made) by Latinos is slightly less than the share of time savings they would receive under the 2001 RTP (see Figure 7.5). However, the same is not true for Asian/Pacific Islanders, whose share of taxes and trip making slightly outweigh the share of time savings they would receive under the Plan. This result may be due to the specific locations where these ethnic groups tend to concentrate in the Region.

When time savings on low-cost public transit, such as local bus and urban rail systems, are considered, the results are even more favorable for lower-income groups. The two lowest-income groups would receive nearly 60 percent of the time savings on transit due to the investments in the Plan. Meanwhile, the share of taxes they pay is just over 20 percent.

TRAFFIC SAFETY

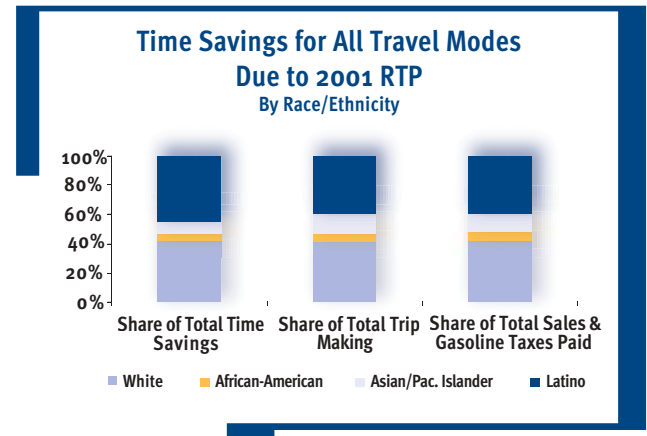
The risk of injury or fatality due to traffic accidents is related to vehicle miles traveled (VMT)

—that is, the more miles one drives, the higher one's risk of injury or death. The 2001 RTP is expected to reduce traffic injuries and to result in no appreciable change in traffic fatalities. Improvements in safety due to the 2001 RTP should be enjoyed by members of all income and ethnic groups in proportion to their numbers in the Region.

The risk to pedestrians likewise depends on the amount of walking, as well as the places where people walk. A September 2000 report by the Surface Transportation Policy Project, *Dangerous By Design*, examines pedestrian safety in Southern California. The report states that pedestrian fatalities account for 20 percent of all traffic deaths statewide, even though only 8 percent of trips are taken on foot. Moreover, the report found that low-income and minority persons are more likely to be victims of pedestrian accidents. These people may walk more often because of the lack of a car; the report also points out that affordable housing may more often be found on high-traffic streets.

While pedestrian safety was not analyzed in this 2001 RTP, the extensive expenditures to improve the Region's transit system, including low-cost shuttle buses and substantial investments in pedestrian and bicycling facilities, should provide new alternatives to traveling on foot and ultimately reduce the toll on pedestrians. Additional steps are encouraged at the local level (e.g., tighter speed limit enforcement; installation of stoplights, signs, pedestrian bridges and speed bumps; or traffic calming measures).

Figure 7.5



NOISE

The environmental justice noise analysis examined two sources of noise: high-way noise and aviation noise. These results are described separately below. Because of differences in data sources, noise standards and analysis methods, the two noise sources cannot be evaluated in combination.

Aviation Noise

SCAG used noise modeling to evaluate the potential impacts of aviation noise arising from flight operations at the Region's airports. System-wide impacts

were evaluated by adding together the impact projected for each airport in the Region, including both cargo and passenger operations. The Federal Aviation Administration (FAA) uses a measure of noise called the Community Noise Equivalent Level (CNEL), which takes into account the mix of aircraft types and the number and timing of flight operations, and penalizes evening and nighttime flights with a high noise value. The FAA considers a 65 decibel (dB) CNEL to be incompatible with residential land uses, so this was the noise threshold used for the analysis.

In this analysis, the total number of residents living within the projected 65 dB CNEL contour at all the Region's airports was determined. The demographics of these residents were then identified based on SCAG's forecasts for 2025. This demographic composition was compared to the demographics projected for the Region as a whole in 2025 to see whether any disproportion would exist. For example, since the Region in 2025 will be about 71 percent non-white, it might be expected that about 71 percent of the people affected by aviation noise

would be non-white. However, SCAG's analysis showed that 89 percent of people affected by aviation noise in 2025 would be non-white, a disproportionate impact (see Figure 7.6). Unlike other analyses, this analysis evaluated total 2025 regional aviation conditions and did not compare impacted population to a Baseline or existing condition. Thus, while the analysis shows a disproportionate impact, the entire impact is not attributable to the Plan.

Figure 7.6

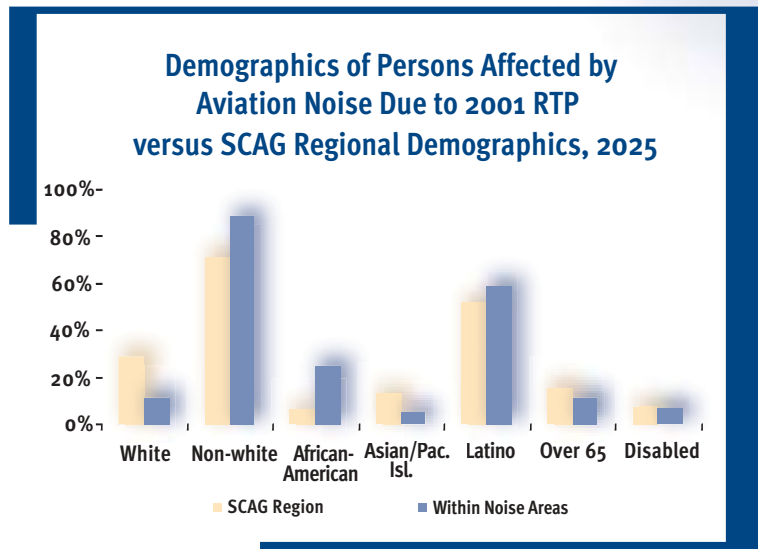
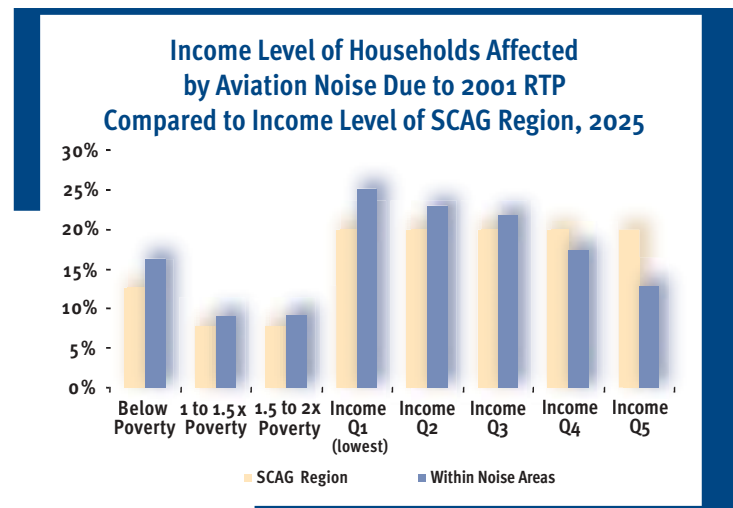


Figure 7.7



Whites, by contrast, will make up about 29 percent of the Region's population in 2025, according to SCAG's projections, but only 11 percent of people affected by significant aviation noise under the RTP. As shown in Figure 7.6, African-Americans and Latinos are the specific groups projected to experience disproportionate aviation noise impacts under the Plan.

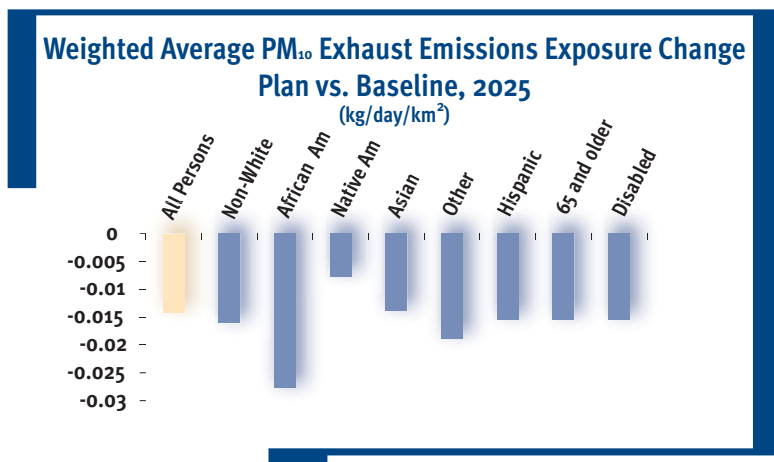
Populations that experience a disproportionate aviation noise impact also tend to have a lower income profile than the Region as a whole. Those living in noise-affected areas have a higher percentage of households in poverty than in the Region as a whole, according to SCAG's projections for 2025 (see Figure 7.7).

The aviation scenario selected to meet the Region's future aviation demand (designated Scenario 8), by limiting further expansion of LAX, is the best possible Plan outcome from an environmental justice perspective. This is due to the relatively high concentration of low-income and minority populations in the vicinity of LAX.

Highway Noise

Highway noise impacts were assessed by using the Regional Travel Demand Model and the Transportation Noise Model to identify those roadway segments where roadway noise would increase by any perceptible amount, based on projected changes in traffic volumes. In contrast to aviation noise, the Federal Highway Administration threshold for noise significance is 66 dB rather than 65 dB. The analysis did not show a disproportionate impact for minorities, the low-income, the elderly or the disabled.

Figure 7.8



AIR QUALITY

SCAG's air quality analysis is based on projected pollutant emissions arising from mobile sources under the 2001 RTP Update. Ideally, the analysis should take into account how these emissions travel and disperse throughout the Region when subject to weather patterns. However, this type of analysis is not required and is beyond the scope of the current Plan and associated programmatic environmental analysis. Therefore, emissions are used as an approximate indicator of personal exposure to pollution under the Plan as compared to the

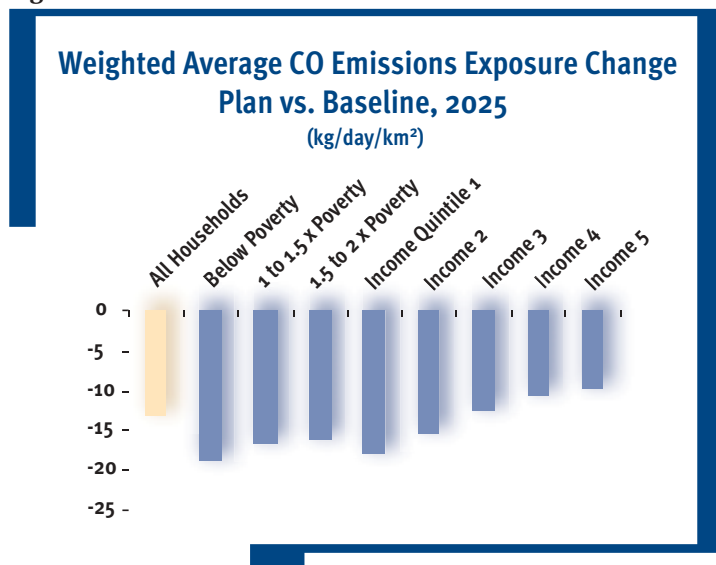
Baseline. The environmental justice analysis focuses on PM₁₀ (from exhaust and tire and brake wear) and CO, pollutants which tend to have localized as well as Region-wide effects.

It is important to note that total emissions of all pollutants (except SO_x and PM₁₀) in the Region will decrease substantially compared to existing conditions with or without the Plan, due to the combination of measures being taken to meet air quality standards. The Plan must demonstrate conformity with regional air quality management plans that call for reductions in emissions of air pollutants. The Plan achieves these reductions through investments

(described in Chapter V) that alleviate roadway congestion, reduce travel distances and times and provide a greater range of alternatives to the use of a car. To focus on the difference made by the Plan, the analysis is based on a comparison of Plan to Baseline conditions, rather than a comparison of Plan to existing conditions.

SCAG calculated the change in emissions exposure due to the Plan for CO and PM₁₀ (from exhaust and tire and brake wear), as well as for the portion of PM₁₀ that is emitted in heavy duty vehicle exhaust. Heavy duty vehicle exhaust is an

Figure 7.9



indicator of exposure to “air toxics”—pollutants from mobile sources that are not regulated by air quality standards. A recent study by the South Coast Air Quality Management District indicated that 90 percent of cancer risk from air pollutants in the air basin arises from mobile source emissions. Furthermore, the study found that 70 percent of cancer risk is attributable to diesel particulate.¹⁶

SCAG’s analysis of air emissions exposure did not indicate disproportionate impacts on minorities, low-income groups, the elderly or the disabled. For example, Figure 7.8 summarizes the results for the air toxics indicator (exhaust PM₁₀ from heavy-duty vehicles). All

groups are projected to experience a decrease in emissions exposure to this pollutant under the Plan compared to Baseline conditions. Results for CO and PM₁₀ (from exhaust and tire and brake wear) followed a very similar pattern.

For low-income groups, the results for change in CO emissions exposure are summarized in Figure 7.9. Again, all groups, regardless of income, will experience a decrease in CO emissions exposure under the Plan compared to the Baseline. Note that the decreases are projected to be larger for lower-income groups than for higher-income groups. Results for PM₁₀ (from exhaust and tire and brake wear) and the air toxics indicator follow a very similar pattern.



VIII.

future link



CORRIDOR PRESERVATION

One of the most notable changes in the identification of long-range corridors has occurred in Riverside County. Long-range corridors previously described in the unconstrained portion of the Plan are now in the constrained 2001 Regional Transportation Plan. The Community Environmental Transportation Acceptability Process (CETAP) underway in Riverside County has led to the identification of four corridors (two intra-county corridors and two inter-county corridors). The ultimate goal of the CETAP process is the preservation of right-of-way to be used for a future transportation project. Ideally, the CETP effort in Riverside County will encourage other agencies to consider a similar effort since there still remains large amounts of open space where future corridors will be needed to meet transportation demand.

It is important to identify and preserve transportation corridors needed to expand or enhance transportation for future generations (see Table 8.1 and Exhibit 8.1). Local governments will find it difficult to obtain optimal locations for these corridors unless efforts to preserve them are made early. The American Association of State Highway and Transportation Officials (AASHTO) Report on Corridor Preservation states that early efforts provide the following benefits. They will:

- ▶ prevent inconsistent development;
- ▶ minimize or avoid environmental, social and economic impacts;
- ▶ prevent the loss of desirable corridor locations;
- ▶ allow for the orderly assessment of impacts;
- ▶ permit orderly project development; and
- ▶ reduce costs.

Ideally, the long-range corridors will encourage planners and policy-makers to start preparing strategies for preserving corridors now. Planning can prevent losing right-of-way needed for transportation beyond the year 2020. Thus, right-of-way preservation is a reasonable concern, particularly in areas where development may block a long-range corridor. More opportunities to capitalize on preservation are available in less urban areas, where local governments have an opportunity to obtain available land for new transportation facilities.

The first step in this kind of planning for the future is to identify potential long-range corridors and determine that there is a need to preserve them. This will require intergovernmental coordination and should include a funding component. Next, criteria to evaluate and prioritize the selected corridors must be developed. Once a corridor is selected, environmental studies will be needed. Traditional preservation techniques include purchasing land or using government statutes to place a corridor alignment on a general plan land use map. There are other state and federal funds that can be used to assist in acquiring land for long-range corridors.



Table 8.1

POST-2025 LONG-RANGE CORRIDORS	
CORRIDOR	SOURCE
Imperial County:	
Forrester Road and Westmorland Bypass Corridor	IVAG
State Route 111 Corridor	IVAG
State Route 115 Corridor	IVAG
Inter/Intra-County Passenger and Freight Rail Corridor	IVAG
Los Angeles County Corridors:	
Santa Clarita Bypass	Caltrans 07
State Route 27	LACMTA
State Route 39 Corridor	Caltrans 07
State Route 101	LACMTA
State Route 126 Corridor	Caltrans 07
State Route 134/SR-210 Corridor	LACMTA
I-405 Corridor (segment)	Caltrans 07; LACMTA
Orange County Corridors:	
I-405 Corridor (segment)	Caltrans 12
San Bernardino County Corridors:	
Euclid Avenue Corridor	San Bernardino Associated Governments
I-15 Corridor	SCAG
Ventura County Corridors:	
Santa Paula Branch Line Corridor	VCTC
SR-118 Corridor	Caltrans 07
Inter-county Corridors:	
Southwest Passage Corridor	SCAG
High Desert Corridor	Caltrans 07 and Caltrans 08
Los Angeles/Coachella Valley/Calexico Rail Corridor	Los Angeles/Coachella Valley/Calexico Corridor Study Caltrans 08; Caltrans 12; Riverside County, and SCAG Staff
North South Corridor	Caltrans 12
Soquel/Jurupa-Limonite/Alder Corridor	SCAG
Cal-Nevada High Speed Rail	OCTA

Post-2025 Long-Range Corridors



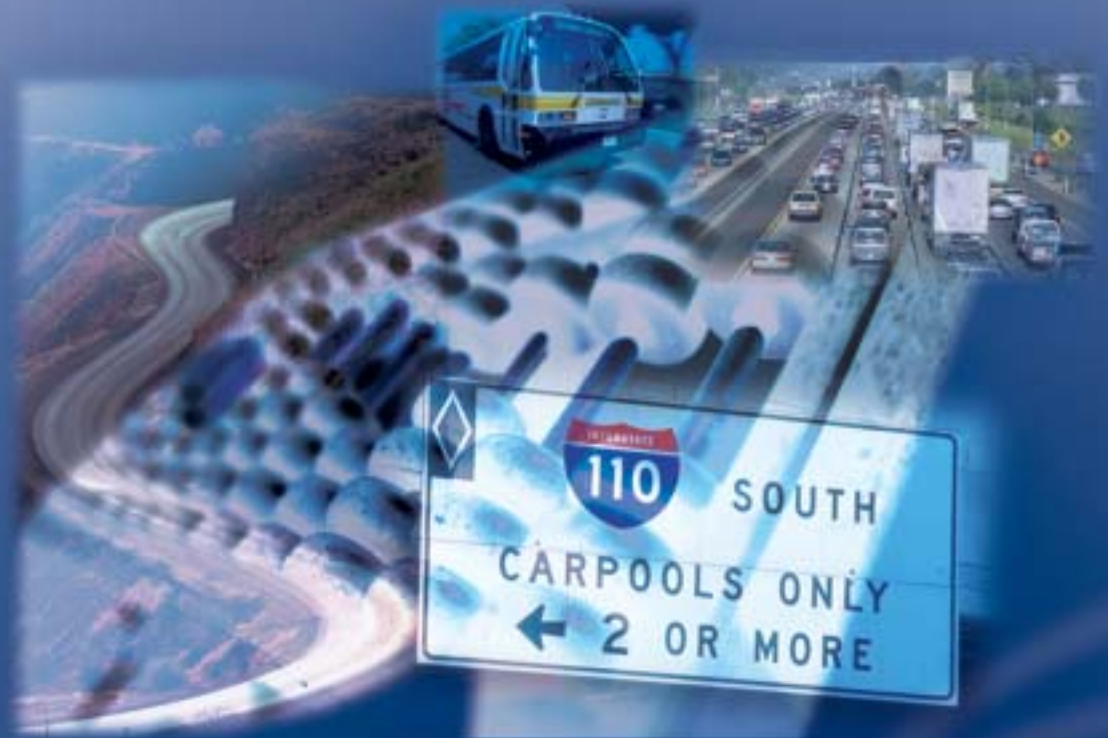
The SCAG Region is pursuing a new, environmentally sensitive approach to considering development. This approach envisions that the transportation options are originally developed with environmentally sensitive land uses and habitat issues being part of the planning and design criteria. It would involve early and active involvement by all stakeholders. The information sources for long-range corridors include:

- ▶ various long-range transportation studies;
- ▶ recommendations from Caltrans;
- ▶ transportation corridor projects expected to be operational after 2020; and
- ▶ informal discussions with public agency staff.

In addition, the Southwest Passage is included to address the needs for preserving corridors to move goods and freight.

UNCONSTRAINED PROJECTS

Under TEA-21, transportation plans must show a reasonable ability to fund all proposed projects. This requirement has compelled the Region to prioritize and focus on projects that are high performing and cost-effective. While this approach keeps the Region's feet, as it were, rooted firmly on good solid financial ground, it may have a tendency to obscure solutions that initially may seem too "blue sky," too costly or too optimistic. Add to this the fact that even with the most successful mix of strategies and programs, congestion in the Region is expected to double, and it makes eminent sense to prepare a list of unconstrained projects. Projects in the unconstrained project list could be advanced through the amendment process to the constrained Plan if new funds are identified—subject to the approved performance and environmental considerations. Under this arrangement, decision-makers have flexibility to consider new projects and to respond to funding opportunities that may present themselves in the future. The unconstrained project list can be found in the Technical Appendix.



IX.

monitoring our progress



As the Metropolitan Planning Organization (MPO) for the six-county Region, SCAG monitors transportation plans, projects and programs for consistency with regional plans. SCAG also monitors the performance of the transportation system.

REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (RTIP)

SCAG is required to prepare the Regional Transportation Improvement Program, demonstrate its consistency with the Regional Transportation Plan (RTP) and make a finding of conformity with the applicable State Implementation Plan before any federal funds may be expended on transportation projects. Preparation of the RTIP involves analysis of over 10,000 projects and project changes. SCAG prepares quarterly amendments, and works with state and regional agencies to coordinate implementation of the RTP through the RTIP.

The RTIP is a capital listing of all transportation projects proposed over a six-year period for the SCAG Region. The projects include highway improvements, transit, rail and bus facilities, high occupancy vehicle lanes, signal synchronization, intersection improvements, freeway ramps, etc. County Transportation Commissions (CTCs) are responsible under state law to propose county projects from among submittals by cities and local agencies. The locally prioritized lists of projects are forwarded to SCAG for review, and SCAG develops the RTIP list of projects based on consistency with the RTP, inter-county connectivity, financial constraint and its ability to make a conformity determination.

RTIP DATABASE MANAGEMENT (TRANTRAK)

To efficiently manage the RTIP process, SCAG has developed the Trantrak Database. Trantrak is a regional database that serves as a listing for projects in the RTIP and RTP, as well as a mechanism for monitoring project implementation in the approved RTIP. Trantrak provides a data repository for tracking proposed transportation projects. Data regarding state, local and transit projects include: descriptions, tracking numbers, amendments, funding sources, approval dates and lead agencies. These data are entered by the Transportation Commissions and SCAG staff and transmitted to Caltrans. Trantrak allows users to produce several informative reports that summarize information based on specified criteria.

CONFORMITY

SCAG is required to make findings of air quality conformity for both the RTP and the RTIP before these documents are approved by federal agencies. Conformity findings must be made with the adoption of a new State Transportation Improvement Program or where changes in federal air quality designation or standards require a further demonstration of conformity.

In federally designated non-attainment or maintenance areas, specific monitoring and consistency are required under the Transportation Conformity Rule. At the time of conformity determination, the RTIP must be consistent with the RTP. During project implementation, the sponsor agencies must implement only those projects that are consistent with the conforming RTIP and RTP. The project design concept and scope must be consistent with those reflected in the conforming RTIP.

The project sponsors must inform SCAG (as the Region's MPO) of any delay in implementation of any Transportation Control Measure (TCM) project that is included in an approved SIP and any project that is regionally significant and modeled, regardless of funding sources. Working with CTCs and with the applicable air districts, SCAG must report on the timely implementation of TCMs. Additionally, SCAG monitors changes resulting from a legal, legislative or election process that may adversely impact the implementation of any TCM or regionally significant project. SCAG informs the sponsor agency of any required actions. In the case of TCM projects, the sponsor agency must officially substitute or replace the affected TCM project.

SCAG's Transportation Conformity Working Group and Modeling Task Force are two official forums used for inter-agency consultation. There may be additional ad hoc forums, if needed, to facilitate the required course of action.

REGIONAL TRANSPORTATION MONITORING

Transportation planning for the Region requires continually improved information on the condition and utilization of the transportation system. Special reports are required from SCAG periodically to show the condition of the highway infrastructure and to monitor the Region's overall traffic. The Highway Performance Monitoring System (HPMS) is a federally mandated program designed by the Federal Highway Administration (FHWA) to assess the performance of the nation's highway system. Under the Clean Air Act, SCAG is also required to report periodically on vehicle miles traveled in each air basin to determine whether traffic growth is consistent with the projections on which the State Implementation Plans (SIPs) are based.

The HPMS is one of the components of an Internet-based transportation system currently under development, the Regional Transportation Monitoring System (RTMS). RTMS will be the source for real-time and historical transportation data collected from different local and regional transportation agencies as well as from private data sources. Based on a GIS mapping system, RTMS will be the main monitoring system for collection and distribution of highway and transit data, local and regional traffic information and activities, as well as hosting the subregional transportation monitoring programs.

HIGHWAY PERFORMANCE MONITORING SYSTEM

HPMS is used as a transportation monitoring and management tool to determine the allocation of Federal Aid Funds, to assist in setting policies and to forecast future transportation needs as it analyzes the transportation system's length, condition and performance. Additionally, HPMS is used to provide data to the Environmental Protection Agency (EPA) to assist in monitoring air quality conformity, and its data are used in support of the Biennial Report to Congress on the Status of the Nation's Highways. The HPMS program is implemented annually by the California Department of Transportation (Caltrans) in the state of California. SCAG's responsibility as an MPO is to assist Caltrans in collecting data from local jurisdictions. SCAG's responsibility also includes distribution, collection and administration of all HPMS survey packages in the six-county Region.

VMT, EMISSION AND CONGESTION REPORT

Beginning six years after the date of enactment of the Clean Air Act Amendments of 1990, any state containing serious and worse Ozone non-attainment areas, or moderate and/or serious carbon monoxide non-attainment areas, is required to demonstrate whether current aggregate vehicle miles traveled (VMT), aggregate vehicle emissions, congestion levels and other relevant parameters are consistent with those used for the area's demonstration of attainment. Within the SCAG Region, the South Coast Air Basin (SCAB), the South Central Coast Air Basin (SCCAB) and the three areas within the Southeast Desert are designated as Ozone non-attainment areas. Additionally, SCAB is designated as a non-attainment area for carbon monoxide. As the Region's MPO, SCAG is responsible for forecasting and tracking VMT, emissions and congestion, and submitting these reports to the California Air Resources Board (CARB). VMT reports for carbon monoxide non-attainment areas are submitted annually. VMT reports for Ozone non-attainment areas are submitted every 3 years.

TRANSIT SYSTEM PERFORMANCE ASSESSMENT

Implementation of the Regional Transportation Plan requires changes in the operating practices of transit agencies and integration of the three tiers of transit into a single functioning system. The process of integration is the responsibility of the operators. SCAG will be evaluating the performance of selected operators to provide feedback and to transfer applicable lessons to other operators in the Region. Issues to be evaluated include the application of advanced transportation technologies applied to the scheduling and routing of transit.

INTERGOVERNMENTAL REVIEW

Under federal law, SCAG is designated as the Regional Clearinghouse for review of all submitted plans, plan changes, projects and programs for consistency with adopted regional plans and policies. Regionally significant transportation projects reviewed for consistency with regional plans are defined as: construction or expansion of free-ways; state highways; principal arterials; routes that provide primary access to major activity centers, such as amusement parks, regional shopping centers, military bases, airports and ports; Goods Movement routes, including both truck routes and rail lines; intermodal transfer facilities, such as transit centers, rail stations, airports and ports and fixed transit routes, such as light and heavy rail and commuter rail. Any project involving transportation improvements is checked to determine whether such improvements are included in the RTP.



BENCHMARKING

As the designated Metropolitan Planning Organization, SCAG is required to prepare the Regional Transportation Plan using performance based measures that will help decision-makers better analyze transportation options and trade-offs. SCAG has developed Performance Indicators for the Region's transportation system. The overall goal of this effort was to develop specific, quantifiable and easily understandable Performance Indicators that better inform elected officials and policy boards of the broad array of choices for investing public and private funds. SCAG has been monitoring a number of performance indicators through a benchmarking process in the annual *State of the Region* report. SCAG also conducts a study of commuter attitudes and behavior and publishes an annual *State of the Commute* report.

THE STATE OF THE REGION

The annual *State of the Region* report published by SCAG tracks a series of indicators on major issues facing the Region. In addition to data on commuters, the *State of the Region* tracks various transportation indicators: vehicle hours of delay (to measure congestion), vehicle miles traveled (which are directly related to mobile source emissions and are also important in determining the demand for infrastructure improvements) and daily person trips (both home-to-work and total trips, which are used in regional models to measure the amount of travel and forecast trends expected to continue). The annual report also tracks total passenger trips for the major transit operators and airport activity for the major airports—including passenger traffic, aircraft operations and air cargo. The report is intended to help members of the public and private sectors analyze the trends and challenges that confront the Region.

THE STATE OF THE COMMUTE

The *State of the Commute* Survey collects information on commuters' travel behavior and attitudes toward the commute, traffic congestion, alternative travel modes, employer transportation programs, high occupancy vehicle lanes and demographic characteristics of commuters in the six-county SCAG Region. This annual survey provides updated data and information for monitoring and assessing mobility in Southern California, a major category of the RTP regional performance indicators. This study has been a useful tool for transportation planners, operators and public officials in their efforts to shape the Region's transportation policy, infrastructure and legislation. The report has also been used by businesses in the development of rideshare promotional activities.



X.

where do we go from here?



How do we move from identification of transportation projects and programs in the 2001 RTP to actual implementation? The Regional Transportation Improvement Program (RTIP) is the primary vehicle to implement the projects and programs identified in the RTP. The projects and programs identified in the RTP must be programmed in the RTIP by the county commissions and other implementing agencies. There are a number of requirements that must be met before a project of regional significance can be programmed in the RTIP. A number of steps and actions must occur to ensure that a project can be moved forward to programming.

Within the context of regional transportation planning, the first step toward strategy/program development is the Regionally Significant Transportation Investment Study (RSTIS) and /or corridor feasibility study, which is a corridor study or alternatives analysis including an NEPA “purpose and need” statement and preliminary environmental documentation. While some projects can move very quickly from idea to implementation, regionally significant strategies and programs require more in-depth study and analysis. During the course of an investment study the Region can determine the various alternatives that may help solve the problem and identify a preferred program or strategy that will be subject to a comprehensive NEPA analysis. It is the responsibility of SCAG to identify which strategies/programs should be subject to such requirements and to identify those programs/projects in the RTP as requiring further study and analysis.



Regionally Significant Transportation Investment Studies (RSTIS), Corridor Studies, Project Initiation Documents (PIDs) and Environmental Documents

Under ISTEA, high capacity, federally funded highway and transit projects were required to undergo a Major Investment Study; however, pursuant to TEA-21 the requirement for a “stand-alone” MIS document was eliminated. Pending DOT planning rules require the content of the old MIS document to be reflected in the planning and project development (“NEPA linkage”) process. The Region now views the RSTIS as the process to refine or update the Regional Transportation Plan for regionally significant corridor projects. Therefore, RSTISs originate from the regional planning process and will be guided by it. SCAG, as the Metropolitan Planning Organization, in cooperation with other stakeholders, shall approve the initiation and scope of an RSTIS. Before a project can be included in the RTIP for construction, the project must be one of the alternatives in a completed RSTIS, a completed project initiation document and cleared environmental documents. The RSTIS shall be included in SCAG’s Overall Work Program.

Since RSTIS is a component of the RTP planning process, the regionally significant alternatives shall be evaluated by the Performance Indicators included in the RTP in order to be considered for incorporation in the RTP. RSTIS alternatives

include alternative modes and technology (intelligent transportation vehicles and highway systems), general alignment, number of lanes, the degree of demand management and operating characteristics. Furthermore, RSTISs are required to evaluate the effectiveness and cost-effectiveness of alternatives in attaining local/regional, state and national goals and objectives. This analysis shall consider the direct and indirect costs (of capital, operating and maintenance and right-of-way) of alternatives; benefits or impacts of mobility improvements; air quality requirements; social, economic and environmental impacts, including environmental justice; safety, operating efficiencies; financing (federal, state and private sources); energy consumption; and public outreach. The results of the RSTIS will help lead to a decision by SCAG, in cooperation with participating public and private organizations, on the design and scope of the investment for the RTP. The preferred alternative of an RSTIS must meet the performance and financial criteria established by the RTP and be approved by the Regional Council before being included in the RTP and Regional Transportation Improvement Program.

RSTISs are eligible for funds authorized under Sections 8, 9 and 26 of the Federal Transit Act, state planning funds and planning and capital funds appropriated under Title 23, United States Code.

RSTISs or other analyses are appropriate when regionally significant investments in the RTP do not have complete environmental analysis, design concept and scope (mode and alignment not fully determined). In these cases requiring further analysis, the RTP may stipulate either a set of assumptions concerning the proposed improvement or no-build condition pending the completion of a corridor or sub-area analysis. The RTP should have enough detail to provide a plan conformity determination.

The SCAG RSTIS Peer Review Group was established to ensure that the process for an RSTIS meets all requirements. The Peer Review Group process is the cooperative process involving SCAG, Caltrans, transit operators, environmental resource agencies and FHWA/FTA. Upon completion of the process, a Letter of Completion is issued. The letter only certifies compliance with the Peer Review Group process.

ACTION—Complete current Major Investment Studies underway, initiate the proposed/future RSTIS and consider incorporating resulting preferred alternatives into the RTP, based on Performance Indicators and funding availability.

ACTION—Complete current corridor studies on projects, corridors and subareas included in the constrained funding (first priority) and in the Unconstrained Project List (second priority).

ACTION—Complete project initiation documents, or their equivalent, on projects, corridors and subareas included in the constrained funding (first priority) and in the Unconstrained Project List (second priority).

ACTION—Complete preliminary/initial environmental documents as part of project initiation documents and comprehensive Environmental Impact Statements (EIS) or Environmental Assessments (EA) for projects in the constrained part of the RTP.



SOUTHERN CALIFORNIA



ASSOCIATION of
GOVERNMENTS

Main Office

818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800

f (213) 236-1825

www.scag.ca.gov

Officers: President: Mayor Pro Tem Ron Bates, Los Alamitos • First Vice President: Supervisor Jon Mikels, County of San Bernardino • Second Vice President: Councilmember Hal Bernson, Los Angeles • Immediate Past President: Supervisor Zev Yaroslavy, Los Angeles County

Imperial County: Hank Kuiper, Imperial County • David Dhillon, El Centro

Los Angeles County: Yvonne Brathwaite Burke, Los Angeles County • Zev Yaroslavy, Los Angeles County • Eileen Ansari, Diamond Bar • Bob Bartlett, Monrovia • Bruce Barrows, Cerritos • George Bass, Bell • Hal Bernson, Los Angeles • Robert Bruesch, Rosemead • Laura Chick, Los Angeles • Gene Daniels, Paramount • Jo Anne Darcy, Santa Clarita • John Ferraro, Los Angeles • Michael Feuer, Los Angeles • Ruth Galanter, Los Angeles • Ray Grabinski, Long Beach • Dee Hardison, Torrance • Mike Hernandez, Los Angeles • Nate Holden, Los Angeles • Sandra Jacobs, El Segundo • Lawrence Kirkley, Inglewood • Keith McCarthy, Downey • Cindy Miscikowski, Los Angeles • Stacey Murphy, Burbank • Pam O'Connor, Santa Monica • Nick Pacheco, Los Angeles • Alex Padilla, Los Angeles • Beatrice Proo, Pico Rivera • Mark Ridley-Thomas, Los Angeles • Richard Riordan, Los Angeles • Karen Rosenthal, Claremont • Marcine Shaw, Compton • Rudy Svorinich, Los Angeles • Paul Talbot, Alhambra • Sidney Tyler, Jr., Pasadena • Joel Wachs, Los Angeles • Rita Walters, Los Angeles • Dennis Washburn, Calabasas • Rob Webb, Long Beach

Orange County: Charles Smith, Orange County • Ron Bates, Los Alamitos • Ralph Bauer, Huntington Beach • Art Brown, Buena Park • Lou Bone, Tustin • Elizabeth Cowan, Costa Mesa • Cathryn DeYoung, Laguna Niguel • Richard Dixon, Lake Forest • Alta Duke, La Palma • Shirley McCracken, Anaheim • Bev Perry, Brea • Tod Ridgeway, Newport Beach

Riverside County: Bob Buster, Riverside County • Ron Loveridge, Riverside • Greg Pettis, Cathedral City • Andrea Puga, Corona • Ron Roberts, Temecula • Charles White, Moreno Valley

San Bernardino County: Jon Mikels, San Bernardino County • Bill Alexander, Rancho Cucamonga • Jim Bagley, Twentynine Palms • David Eshleman, Fontana • Lee Ann Garcia, Grand Terrace • Gwenn Norton-Perry, Chino Hills • Judith Valles, San Bernardino

Ventura County: Judy Mikels, Ventura County • Glen Becerra, Simi Valley • Donna De Paola, San Buenaventura • Toni Young, Port Hueneme

Riverside County Transportation Commission: Robin Lowe, Hemet

Ventura County Transportation Commission: Bill Davis, Simi Valley

RESOLUTION # 01-418-2

RESOLUTION OF THE SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS TO
ADOPT THE 2001 REGIONAL TRANSPORTATION PLAN IN ACCORDANCE WITH STATE
AND FEDERAL REQUIREMENTS

WHEREAS, the Southern California Association of Governments (SCAG) is a Joint Powers Agency established pursuant to Section 6502 et seq. of the California Government Code; and

WHEREAS, SCAG is the designated Metropolitan Planning Organization (MPO) for the counties of Los Angeles, Riverside, San Bernardino, Ventura, Orange and Imperial, and as such is responsible for developing a Regional Transportation Plan pursuant to 23 U.S.C. 134(a) and (g), 49 U.S.C. §5303(f), 23 C.F.R. §450 and 49 C.F.R. §613; and

WHEREAS, the Transportation Equity Act of the 21st Century (TEA-21) generally mandates metropolitan planning organizations such as SCAG, in cooperation with the states, to develop transportation plans and programs for state urbanized areas; and

WHEREAS, SCAG is the designated Regional Transportation Planning Agency (RTPA) under state law, and as such is responsible for preparing, adopting and updating a regional transportation plan pursuant to Government Code Sections 65080 et seq.; and

WHEREAS, pursuant to 23 C.F.R. §810.6(a), the projects included in the RTP must be based on the continuing, cooperative and comprehensive transportation planning process mandated by 23 U.S.C. §134 and 23 C.F.R. §450; and

WHEREAS, pursuant to Section 130304(b) of the Public Utilities Code, SCAG may revise transportation improvement programs submitted by counties, inter alia, to resolve conflicts between the county submittals and with the adopted RTP; and

WHEREAS, Government Code Section 14000.5(b) requires that state highway planning to conform, inter alia, to regional transportation plans and to be compatible, inter alia, with regional socioeconomic and environmental goals, priorities and available resources; and

WHEREAS, Section 130252(a) of the Public Utilities Code prohibits the California Transportation Commission from approving any plan for the design, construction and implementation of public mass transit systems or projects, including federal-aid and state highway projects, which do not conform to the adopted Regional Transportation Plan; and

WHEREAS, Section 120260 of the Public Utilities Code requires that guideways developed by county transit development boards conform, inter alia, to the Regional Transportation Plan; and

WHEREAS, Government Code Section 14031.6(b) and 14031.7(a) require that requests made by the State Department of Transportation for certain capital improvement funds for commuter services be consistent with the RTP; and

WHEREAS, Section 14000.5(d) requires, inter alia, the consistency of the location of rail corridors and their service characteristics with regional goals and objectives of the RTP; and

WHEREAS, under Government Code Section 14035.7, funds allocated for commuter rail purposes must be consistent, inter alia, with the applicable RTP; and

WHEREAS, pursuant to Government Code Section 14000.5, the air transportation system developed by the state must, inter alia, provide services meeting regional goals and objectives; and

WHEREAS, pursuant to federal metropolitan planning regulations at 23 C.F.R. §450.322(a), the RTP must include both long-range and short-range strategies and actions that lead to the development of an integrated intermodal transportation system that facilitates the efficient movement of people and goods; and

WHEREAS, the 2001 RTP contains both long-range and short-range strategies which meet these goals; and

WHEREAS, pursuant to the Guidelines and to 23 C.F.R. §450.314, SCAG must develop a detailed work plan for carrying out the regional transportation planning process; and

WHEREAS, the work plan must identify planning resources, staffing responsibility, authority, operating procedures and other factors essential for development of the Plan, identify all work proposed by the RTPA and their sources of funding, discuss development of the RTP, the Transportation Demand Management Process, and the RTIP; and consider implementation of Plan activities; and

WHEREAS, the work plan must be submitted to Caltrans for review and approval; and

WHEREAS, the work plan developed by SCAG meets these requirements; and

WHEREAS, the process used to develop the RTP must be consistent with the metropolitan planning process requirements of the TEA-21 found at 23 U.S.C. §§134 et seq. and accompanying federal regulations at 23 C.F.R. §450; and

WHEREAS, the process used by SCAG is so consistent; and

WHEREAS, pursuant to 23 U.S.C. §134(a) and 23 C.F.R. §450.300, the development process must provide for consideration of all modes of transportation and must be continuing, cooperative and comprehensive to the degree appropriate, based on the complexity of the transportation problems; and

WHEREAS, the RTP must be consistent with the December 1999 RTP Guidelines prepared by the California Transportation Commission; and

WHEREAS, the RTP must be consistent with the requirements of Public Utilities Code Section 130301; and

WHEREAS, the RTP developed by SCAG is consistent with these requirements; and

WHEREAS, 23 C.F.R. §450.316(b) requires SCAG to have a citizen participation program which affords citizens and interested parties a reasonable opportunity to comment on the RTP prior to adoption; and

WHEREAS, pursuant to 23 C.F.R. §450.316, this public participation process must itself be a product of consultation with citizens and other affected parties; and

WHEREAS, pursuant to 23 C.F.R. §§450.316(b)(1)(i) and 450.322(c), the planning process must involve citizens; segments of the community affected by the plan and its projects; elected officials and other public officials; affected agencies, representatives of transportation agency employees; private providers of transportation; senior citizens; Native Americans; minorities; women; health and handicapped organizations (as required by the 1990 Americans With Disabilities Act); groups traditionally underserved by existing transportation systems, including low-income and minority households; and other interested parties; and

WHEREAS, SCAG has made numerous outreach presentations at meetings of different SCAG committees such as the Transportation and Communications Committee, Long-Range Transportation Task Force, Goods Movement Advisory Committee, Aviation Task Force, Regional Transit Task Force, Transit Corridors Task Force, Truck Lanes Task Force, Growth Forecasting Task Force, Transportation Conformity Working Group and the Modeling Task Force; has additionally conducted numerous briefings of state and federal legislators, County Transportation Commissions, Native Americans, members of low-income and minority populations and business groups; held two electronic town forums in the Inland Empire and Simultaneous to Gateway and South Bay; 41 community dialogues; 17 presentations/workshops to subregional groups; 15 community workshops; and 46 workshops to interest groups; and

WHEREAS, SCAG received approximately 700 comments on the 2001 Draft RTP and responded to those comments; and

WHEREAS, as required by 23 C.F.R. §450.312(d), the RTP must be consistent with all other applicable provisions of federal and state law, including:

- (1) TEA-21
- (2) The metropolitan planning regulations at 23 C.F.R. §450
- (3) Sections 174 and 176(c) and (d) of the Federal Clean Air Act [42 U.S.C. §§7504 and 7506(c) and (d)]
- (4) Title VI of the 1964 Civil Rights Act and the Title VI assurance executed by the state pursuant to 23 U.S.C. §324
- (5) The Department of Transportation's Final Environmental Justice Strategy, enacted pursuant to Executive Order 12,898, which seeks to avoid disproportionately high and adverse impacts on minority and low-income populations with respect to human health and the environment; and
- (6) The 1990 Americans with Disabilities Act (42 U.S.C. §§12001 et seq.) and accompanying regulations at 49 C.F.R. §27, 37, and 39; and

WHEREAS, the 2001 RTP is consistent with all of these requirements; and

WHEREAS, the Guidelines and Government Code Sections 65070(a) and 65080(a) respectively require that transportation system planning efforts must be coordinated with those of Caltrans, and the planning process must be coordinated with those of other local and regional governments, as well as those of adjoining regional transportation planning agencies, congestion management agencies, transit operators and the goods movement industry; and

WHEREAS, SCAG's planning process was so coordinated; and

WHEREAS, SCAG has made all necessary such certifications; and

WHEREAS, the process which develops the Plan must also be consistent with the terms of the December 1993 MOU concerning the NEPA / 404 Process, and with all other MOUs signed by SCAG which contain mandatory, rather than advisory, provisions; and

WHEREAS, the 2001 RTP is consistent with these requirements; and

WHEREAS, pursuant to Section 176(c) of the Federal Clean Air Act [42 U.S.C. §7506(c)], no project may receive Federal funding unless, inter alia, it comes from a Regional Transportation Plan which has been found to conform to the applicable State Implementation Plan; and

WHEREAS, the 2001 RTP contains such a statement and finding; and

WHEREAS, 23 C.F.R. §450.324(d) requires that, in nonattainment and maintenance areas for transportation-related pollutants, the FHWA, FTA and SCAG make a conformity determination on any new or revised RTP in accordance with the requirements of the Federal Clean Air Act (42 U.S.C. §§7401 et seq.) and the federal conformity regulations found at 40 C.F.R. §93; and

WHEREAS, the new 2001 RTP has been found to conform; and

WHEREAS, pursuant to the Guidelines, the RTP may contain an Executive Summary which identifies the most significant aspects of the Plan and which clearly and concisely describes the needs, alternatives, and selected actions for the Region identified elsewhere in the Plan; and

WHEREAS, the 2001 RTP does contain an Executive Summary; and

WHEREAS, the Guidelines also allow the RTP to contain an Assessment of Needs section the purpose of which is to facilitate the flow of project development at its earliest stages; and

WHEREAS, the 2001 RTP contains an Assessment of Needs; and

WHEREAS, pursuant to Government Code Section 65081(a), the RTP must include a Policy Element which considers important transportation issues and identifies transportation goals, policies and system objectives which meet the needs of the Region and which are consistent with comprehensive state and regional goals; and

WHEREAS, the 2001 RTP contains a Policy Element meeting these requirements; and

WHEREAS, Government Code Section 65081(b) requires the RTP to contain an Action Element which describes the programs and actions necessary to implement the Plan and which assigns implementation responsibilities; and

WHEREAS, an Action Element is part of SCAG's 2001 RTP; and

WHEREAS, pursuant to Government Code Section 65080(b)(3) and 23 C.F.R. §450.322(b)(11), the Plan must also contain a financial element which compares the estimated revenue from existing and proposed funding sources that can reasonably be expected to be available for transportation uses with the estimated costs of constructing, maintaining and operating the total transportation system over the period of the Plan; and

WHEREAS, Government Code Section 65080(b)(3), 23 C.F.R. §450.322(b)(11) and the Guidelines require that the financial element summarize the cost of plan implementation constrained by a realistic projection of available revenues; identify expected surpluses or deficits, recommended sources of funding and the detailed cost estimates for short-range projects which, constrained by projected revenues, form the basis for development of the Regional Transportation Improvement Program (RTIP); and

WHEREAS, these assumptions should be provided to the level of detail necessary for state and local decision-makers to evaluate Plan alternatives; and

WHEREAS, pursuant to 23 C.F.R. §450.322(b)(11), the Financial Element must also set forth the specific financial strategies required to ensure the implementation of projects and programs so as to attain compliance with applicable Air Quality standards; and

WHEREAS, 23 C.F.R. §450.336(a) requires that updates of the RTP be financially feasible; and

WHEREAS, SCAG's 2001 RTP contains a financial element which meets these requirements; and

WHEREAS, Section 21000 et seq. of the Public Resources Code requires environmental documents prepared for the RTP to meet all applicable requirements of the California Environmental Quality Act (CEQA) and accompanying guidelines relating to content, preparation, review and final determination; and

WHEREAS, the EIR for the RTP must, inter alia, document the Plan development process, assess the Plan's consistency with state and regional comprehensive planning and include, for each alternative, those impacts that were significant on a regional systemwide level, as required by Public Resources Code Section 21000 et seq. and by Section 14522 of the Government Code; and

WHEREAS, Public Resources Code §§21000 et seq. and Government Code Section 14522 require the RTP to clearly document that the process and procedures followed in reassessment are in compliance with CEQA; and

WHEREAS, the Program Environmental Impact Report prepared and certified for the 2001 RTP meets all such requirements; and

WHEREAS, the 2001 RTP replaces the 1998 Regional Transportation Plan, adopted by the Regional Council on April 16, 1998; and

WHEREAS, however, the 2001 RTP incorporates other chapters of the Regional Comprehensive Plan and Guide; and

WHEREAS, pursuant to 23 C.F.R. §450.322(a), the RTP must be reviewed and updated at least once every three years in order to confirm its validity and its consistency with current and expected transportation and land use conditions and trends, and to extend its forecast period; and

WHEREAS, pursuant to Government Code Section 65080(c), RTP updates must be adopted and submitted to the California Transportation Commission and the Department of Transportation by December 1 of each even-numbered year;

NOW, THEREFORE BE IT RESOLVED that:

1. The Southern California Association of Governments finds as follows:
 - a. A successful regional transportation plan utilizes an inclusive process which ensures equity and the full participation of SCAG, all subregions and the county transportation commissions; and
 - b. The 2001 RTP has initiated strategic discussions about a number of significant transportation and regional development issues, including growth visioning and alternative growth strategies as they relate to the development of transportation systems; and
 - c. The next update of the RTP will be presented to the Regional Council no later than April 2004; and
 - d. The process for reviewing and providing future RTP updates to meet regional and subregional requirements and goals shall include SCAG and each of the subregions and county transportation commissions, providing input into the SCAG process from their subregional and county transportation programs in an interactive and cooperative manner. This process shall be facilitated by the reformation of an RTP Technical Advisory Committee consisting of representatives of each subregion, each county transportation commission, SCAG and other affected parties. The funding to support this RTP update effort shall be identified through the 2001-2002 Overall Work Program budget.
 - e. SCAG staff will develop and present a work program to the Regional Council for the 2004 RTP update no later than December 2001.
2. The Regional Council hereby approves and adopts the 2001 RTP incorporating herein all of the foregoing recitals.

Approved at a regular meeting of the Regional Council of the Southern California Association of Governments on this 12th day of April, 2001.



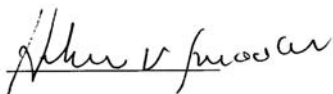
Ronald Bates
President
Mayor Pro Tem, City of Los Alamitos

Attest:



MARK A. PISANO
Executive Director

Approved as to Form:



HELENE V. SMOOKLER
Legal Counsel



CHAPTER 1

Page 7

¹ Which is a less-populated desert area known as Palos Verdes Valley.

CHAPTER 3

Page 37

² For further information, see SCAG's adopted compliance procedure for Environmental Justice in the Planning Process, October 2000.

Page 38

³ Statewide transportation Planning: Metropolitan Transportation Planning: Proposed Rule, Federal Register, Vol. 65, No. 102, Thursday, May 25, 2000 (65 FR 33922).

CHAPTER 6

Page 121

⁴ Advisory Commission on Electronic Commerce, Report to Congress, April 2000.

⁵ Ibid.

Page 122

⁶ Current short-term capital commitments are defined in note number (1) under the Baseline Cost table.

Page 123

⁷ Local streets and roads are not included in this analysis. Roadway expenditures as outlined here consist of highway and major arterial costs that come through the regional planning process.

⁸ Figure 6.5 includes MAGLEV costs (\$16 billion) for the transit category.

⁹ Transit related expenditures for the Region are mostly attributable to Los Angeles County. Moreover, transit expenditures in Los Angeles County are primarily due to LACMTA's capital and operating programs.

Page 126

¹⁰ See Financial Plan Appendix for a more detailed discussion of innovative federal funding programs in addition to other alternative funding options considered.

¹¹ Net toll revenue includes interest earnings and subtracts operations and maintenance expenses.

Page 127

¹² Federal Railroad Administration grant.

¹³ See Financial Plan Appendix for a detailed breakdown of transportation revenue sources (by levels of government) for the Region.

Page 128

¹⁴ Of this \$1 billion, \$678 million will be allocated each year to fund the projects specified in the Governor's TCRP and the remaining funds will be allocated for local street and roads, transit and STIP projects.

CHAPTER 7

Page 148

¹⁵ 2000 Census data was not yet available when the analyses were performed.

Page 154

¹⁶ Final Report, Multiple Air Toxics Exposure Study in the South Coast Air Basin (MATES-II), South Coast Air Quality Management District, March 2000, pp. ES-3, ES-9.



GLOSSARY AND ACRONYMS	
AASHTO	American Association of State Highway and Transportation Officials
ACE	Alameda Corridor East
ADA	The Americans with Disability Act (ADA) prescribes federal transportation requirements for transportation providers
Antelope Valley APCD	Antelope Valley Air Pollution Control District
AQMP	Air Quality Management Program
ARB	Air Resource Board
ATIS	Advanced Traveler Information Systems
ATMS	Advanced Traffic Management Systems
AVR	Average ridership
BNSF	Burlington Northern and Santa Fe Railway Co.
CAA	Federal Clean Air Act (CAA)
CALTRANS	California Department of Transportation
CARB	California Air Resource Board
CBA	Cost-Benefit Analysis
C/E	Cost/Effectiveness
CEA	Cost-Effectiveness Analysis
CEHD	Community, Economic and Human Development Committee
CEQA	California Environmental Quality Act
CETAP	Community Environmental and Transportation Acceptability Process
CMAQ	Congestion Mitigation and Air Quality Program
CMS	Congestion Management System; also the federal reference to California Congestion Management Program. A program to reduce congestion on regional streets and roads using travel demand reduction and operational management strategies.

CO	Carbon monoxide
COG	Council of Government
Congestion pricing	User-fee imposed on vehicles during peak demand periods on congested roadways
Constant dollars	Dollars expended/received in a specific year adjusted for inflation/deflation relative to another time period
Corridor	In planning, a broad geographical band that follows a general directional flow or connects major sources of trips. It may contain a number of streets and highways, and transit lines and routes.
CTC	California Transportation Commission or, generally, County Transportation Commission
CVO	Commercial Vehicle Operations
Current dollars	Actual dollars expended/received in a specific year without adjustments for inflation/deflation
DTIM	Direct Travel Impact Model
EDF	Environmental Defense Fund
EMFAC 7G	Emission Factor
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FHWA	Federal Highway Administration
Financially constrained	Expenditures are said to be financially constrained if they are within limits of anticipated revenues
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GARVEE	Grant Anticipation Revenue Vehicles
GIS	Geographic Information System
GMAC	Goods Movement Advisory Committee
GNP	Gross National Product

Grade crossing	A crossing or intersection of highways, railroad tracks, other guideways, or pedestrian walks, or combinations of these at the same level or grade
High-Occupancy Vehicle (HOV)	Motor vehicle occupied by two or more persons. Vehicles include automobiles, vans, buses and taxis.
Home-based work trips	Home-based work trips include telecommuting, working at home and non-motorized transportation work trips.
HOT Lanes	High Occupancy Toll Lanes
Hours of Delay (HOD)	HOD represents the travel time spent on the highway due to congestion. Delay is estimated as the difference between vehicle hours traveled at free flow speed and vehicle hours traveled at congestion speed.
HPMS	Highway Performance Monitoring System
ICAPCD	Imperial County Air Pollution Control District
Infrastructure	The basic facilities, equipment, services and installations needed for the growth and functioning of a community
Intelligent Transportation Systems (ITS)	Intelligent Transportation Systems use modern detection, communications and computing technology to collect data on system operations and performance, communicate that information to system managers and users and use that information to manage and adjust the transportation system to respond to changing operating conditions, congestion or accidents. ITS technology can be applied to arterials, freeways, transit, trucks and private vehicles. ITS include Advanced Traveler Information Systems (ATIS), Advanced Public Transit Systems (APTS), Advanced Traffic Management Systems (ATMS), Advanced Vehicle Control Systems (AVCS) and Commercial Vehicle Operations (CVO).
Intermodal Surface Transportation Efficiency Act (ISTEA)	Signed into federal law on December 18, 1991, it provided authorization for highways, highway safety and mass transportation for FYs 1991–1997 and served as the legislative vehicle for defining federal surface transportation policy.
IVAG	Imperial Valley Association of Governments
JPA	Joint Powers of Authority

LACMTA	Los Angeles County Metropolitan Transit Authority, more commonly referred to as the MTA
LAUPT	Los Angeles Union Passenger Terminal
LEM	Location efficient mortgage
Livable Communities	Livable Communities are those that are pedestrian and transit-friendly environments that will be achieved through local government building and design standards, and private builders' implementation.
MAGLEV	Magnetic Levitation transportation system
Major Investment Study (MIS)	A Major Investment Study is the preliminary study including preliminary environmental documentation for choosing alternative transportation projects for federal transportation funding. An MIS is a requirement, which is conducted cooperatively by the study sponsor and the metropolitan planning organization.
MAP	Million Annual Passengers
Market incentives	Measures designed to encourage certain actions or behavior. These include inducements for the use of carpools, buses and other High-Occupancy Vehicles in place of single-occupant automobile travel. Examples include HOV lanes, preferential parking and financial incentives.
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
Mixed flow	Traffic movement having autos, trucks, buses and motorcycles sharing traffic lanes
Mode	A particular form of travel (e.g., walking, traveling by automobile, traveling by bus or traveling by train)
Model	A mathematical description of a real-life situation that uses data on past and present conditions to make a projection
Mode split	The proportion of total person trips using various specified modes of transportation

MPO	Metropolitan Planning Organization. An organization of local governments that coordinates the transportation planning process for an urbanized area or contiguous urbanized areas. These agencies are designated by the governor of the state with the consensus of the local governments within the jurisdiction of the MPO.
MTS	Metropolitan Transportation System
Multi-modal	A mixture of the several modes of transportation—transit, highways, non-motorized, etc.
NAFTA	North American Free Trade Agreement
NO_x	Nitrogen oxides
NO₂	Nitrogen dioxide
ONTRAC	Orange-North America Trade Rail Access Corridor
OWP	Overall Work Program
O & M	Operation and Maintenance
Peer Review Committee (PRC)	An “informal” committee of technical experts usually organized and invited to review and comment on various technical issues and processes used in the planning process. These committees are useful in sharing experiences in various planning issues and in developing consensus on how to address various technical issues.
Person trip	A trip made by a person by any mode or combination of modes for any purpose
PHT	Person-hours traveled
PM₁₀	Particulate matters in size of 10 microns or less
PNP	Public Non-Profit
PSR	Project Study Report
PUC	Public Utilities Commission

Regional Transportation Improvement Program (RTIP)	A multi-year, multi-modal program of regional transportation improvements for highways, transit and aviation. The RTIP consists of projects drawn from the Regional Transportation Plan (RTP). The projects are directed at improving the overall efficiency and people-moving capabilities of the existing transportation system while incrementally being developed into the long-range plan.
Regional Transportation Plan (RTP)	The Regional Transportation Plan (RTP) is Southern California's 20-year transportation vision. The RTP is a critical document for projects to qualify for future federal, state and local funding sources. Per state and federal law, transportation agencies are required to prepare and adopt a coordinated and balanced regional transportation plan that includes: mass transportation; railroad, pedestrian, aviation facilities and services; highway, bicycles, Goods Movement and maritime. Every three years SCAG must revise the RTP with updated information and a new environmental clearance.
RHNA	Regional Housing Needs Assessment
ROG	Reactive organic gas
RSTIS	Regionally Significant Transportation Investment Study
RSTP	Regional Surface Transportation Program
RTMS	Regional Transportation Monitoring System
SANBAG	San Bernardino Association of Governments
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments is the Metropolitan Planning Organization (MPO) for six counties: Los Angeles, Orange, San Bernardino, Riverside, Ventura and Imperial. As the designated MPO, the Association of Governments is mandated by the federal government to research and draw up plans for transportation, growth management, hazardous waste management and air quality. Additional mandates exist at the State level.
SCAQMD	South Coast Air Quality Management District
SCCAB	South Central Coast Air Basin

SCRRRA	Southern California Regional Rail Authority
SED	SCAG's socio-economic data (SED); often referred to as the population, employment and housing forecast
SHOPP	State Highways Operation and Protection Plan
SIP	State Implementation Plan
SO_x	Sulfur dioxide
SSAB	Salton Sea Air Basin
STA	State Transit Assistance
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
TAC	Technical Advisory Committee for the RTP
TANN	Traveler Advisory News Network
TAZ	Traffic Analysis Zone
TCC	Transportation and Communications Committee
TCM	Transportation Control Measure. A project or program that is designed to reduce air quality emissions. TCMs are referenced in the State Implementation Plan (SIP) for the applicable air basin and have priority for programming and implementation ahead of non-TCMs.
TCRP	The Governor's Traffic Congestion Relief Program (TCRP)
TDA	Transportation Development Act
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21st Century
TIFIA	Transportation Infrastructure Finance and Innovation Act
TP & D	Transportation Planning and Development Account
Transit-dependent	Individual(s) dependent on public transit to meet private mobility needs (e.g., unable to drive, not a car owner, not licensed to drive, etc.)

VC	Ventura County
VCTC	Ventura County Transportation Commission
Vehicle Miles Traveled (VMT)	On highways, a measurement of the total miles traveled by all vehicles in the area for a specified time period. It is calculated by the number of vehicles times the miles traveled in a given area or on a given highway during the time period. In transit, the number of vehicle miles operated on a given route or line or network during a specified time period.
Vehicle trip	The one-way movement of a vehicle between two points
UP	Union Pacific Railroad
USDOT	United States Department of Transportation



DEPARTMENT/ SECTION	NAME AND TITLE	RESPONSIBILITY/ EXPERTISE	CONTACT INFORMATION
Southern California Association of Governments	Mark Pisano Executive Director		213-236-1808 Pisano@scag.ca.gov
Planning & Policy Department	Jim Gosnell Director		213-236-1889 Gosnell@scag.ca.gov
Planning & Analysis Section	Hasan Ikhmeta Manager	► Financial ► Transportation ► RTP	213-236-1944 Ikhmeta@scag.ca.gov
Aviation & Environmental Section	Rich Macias Manager	► Aviation ► Environmental	213-236-1805 Macias@scag.ca.gov
Forecasting Section	Jim Jacob Interim Manager	► Economic Forecasts ► Growth Forecasts ► EIR	213-236-1821 Jacob@scag.ca.gov
Comprehensive Planning Section	Lynn Harris Manager	► RCP & G ► AQMP ► RHNA ► Livable Communities	213-236-1856 Harris@scag.ca.gov
Special Projects Section	Zahi Faranesh Manager	► Special Projects	213-236-1819 Faranesh@scag.ca.gov
Performance Assessment & Implementation Department	John Cox Director		213-236-1900 Cox@scag.ca.gov
Performance Assessment & Implementation Department	Sylvia Patsaouras Manager	► Benchmarking ► Monitoring ► TIP ► Conformity ► IGR	213-236-1806 Patsaouras@scag.ca.gov
Information Services Department	Jim Sims Director		213-236-1980 Sims@scag.ca.gov
Regional Database Section	Jim Jacob Interim Manager	► Database ► Marketing Plans ► GIS ► Mapmaking	213-236-1821 Jacob@scag.ca.gov
Rideshare Services Section	Cheryl Collier Manager	► 1-800 Phones ► Reg Processing	213-236-1942 Collier@scag.ca.gov
Human Resources, Legal & Government Decision-Making Dept.	Helene Smookler Director	► Legal Services	213-236-1816 Smookler@scag.ca.gov
Communications Section	Al Fuentes Manager	► Membership Services ► External Relations ► Govt. Relations	213-236-1882 Fuentes@scag.ca.gov
Chief Financial Office	Bert Becker Director		213-236-1960 Becker@scag.ca.gov
Operations Section	Victor Ryden Interim Manager	► Computers ► Graphics ► Operations ► Reproduction	213-236-1822 Ryden@scag.ca.gov
Deployment & Partnership Dept. Private Sector Implementation	John Cox Director	► Southern California Economic Partnership (SCEP)	The-Partnership@ worldnet.att.net
Acknowledgments: Naresh Amatya, Lead Senior Transportation Planner, Regional Transportation Plan ► Mary Jane Abare ► Michael Armstrong ► Amy Atkinson ► John Bacon ► Justine Block ► Anja Bohler ► Paul Burke ► Mark Butala ► Patricia Camacho ► Simon Choi ► Francisco Contreras ► Larry Cottrill ► Zahi Faranesh ► George Fetty ► Jerry Flores ► Welma Fu ► Michelle Glickert ► Dan Griset ► Carolyn Hart ► Alan Havens ► His-hwa Hu ► Robert Huddy ► Dale Iwai ► Linda Jones ► Charles Keynejad ► Hong Kim ► Kelly Kim ► Elyse Kusunoki ► Philip Law ► Deng Bang Lee ► Huasha Liu ► Richard Mader ► Jihong McDermott ► Corine Milner ► David Milner ► Javier Minjares ► Annie Nam ► Nancy Pfeffer ► Catherine Rachal ► Jennifer Ramirez ► Chris Rexinger ► Jennifer Robertson ► Sara Rubalcava ► Gilbert Ruiz ► Barry Samsten ► Arnold San Miguel ► Alexis Schopp ► Brianne Spalding ► Lisa Taylor ► Alan Thompson ► Steven Villanueva ► Debra Varnado ► Ashwani Vasisht ► Bernice Villanueva ► Kurt Walker ► Teresa Wang ► Ping Wang ► Frank Wen ► Harlan West ► Philbert Wong			

ERRATA

The following is a typographical error:

Page 144 – PM10 – SCAB (excluding Banning Pass)

Primary Particulate Matter		2010
Build	Value shown on p. 144	230.218
	Correct value	230.350

The following PM10 areas were subject to conformity (regional emissions analysis) reassessment. The new values were approved by the federal agencies on August 3, 2001, after the publication of the RTP.

Page 145 – PM10 – MDAB (San Bernardino County – Excluding Searles Valley)

Year shown on p. 145		2000	2010	2020	2025
Correct Year		2005	2010	2020	2025
Build	Value shown on p. 145	--	16.068	20.607	22.268
	Correct Value	14.523	16.442	21.483	22.364
No-Build	Value shown on p. 145	--	16.104	21.001	23.052
	Correct Value	15.597	17.171	21.640	23.585

Page 145 – PM10 – Riverside County (Coachella Valley Including Banning Pass) SSAB

Year shown on p. 145		2000	2010	2020	2025
Correct Year		2005	2010	2020	2025
Build	Value shown on p. 145	--	11.288	15.915	17.464
	Correct Value	9.805	11.347	15.981	17.464
No-Build	Value shown on p. 145	--	11.368	16.142	17.778
	Correct Value	10.180	11.762	16.536	18.172

**To obtain a copy of this report or other RTP
publications, please call:**

Javier Minjares at (213)236-1893

Monday-Friday between 9:00 AM and 5:00 PM

Or write the RTP Staff at:

SCAG

818 W. 7th St., 12th Floor

Los Angeles, CA 90017

ATTN: RTP Comments

To view this document and other RTP reports and
analysis, please log on to our website:

<http://www.scag.ca.gov>

